Address

ON

THE RELATION OF FOOD TO WORK DONE BY THE BODY, AND ITS BEARING UPON MEDICAL PRACTICE.

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BY THE

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Introductory.—Man, like other animals, is born, grows, comes to maturity, reproduces his like, and dies; passing in his lifetime through a cycle of changes that may be compared to a *secular* variation, by a metaphor borrowed from the science of astronomy; while, in his daily life, he passes through a smaller cycle of changes that may be called *periodic*.

From the time of the publication of Bichat's essay "On Life and Death," it has been admitted that man and other animals possess a double life, *animal* and *organic*, presided over respectively by two distinct, though correlated centres of nervous force; of these, one *thinks, moves*, and *feels*; the other merely *cooks*,—receiving the food supplied, changing and elaborating it into elements suitable for the use of the animal life.

In the lower forms of animals, the organic life becomes almost coextensive with the whole being of the creature, which simply digests, assimilates, and excretes; but barely feels or moves. In the higher forms of animals, and more especially in man, the animal life dominates over the organic life, which becomes its slave, and it exhibits the remarkable phenomena of *mechanical force*, of *geometrical instinct*, of *animal cunning*, and, finally, in man himself, produces *intellectual work*, rising to its highest form in the *religious feeling* that recognises its great Creator, and bows in humility before Him.

It is a simple matter of fact, and of every-day observation, that all these forms of *animal work* are the result of the reception and assimilation of a few cubic feet of oxygen, a few ounces of water, of starch, of fat, and of flesh.

The general question of the relation of Food to Work would involve a consideration of the possibility of throwing a bridge across the gulf that separates the organic from the animal life, so as to connect the products of nutrition (taken in its widest sense) with the work of every kind accomplished by the animal life, whether mechanical or intellectual.

We resemble the spiders of the heather on a summer morning, that float their gossamer threads into the air from the summit of a branch, in the hope that some stray breath of wind may fasten it to a neighbouring tuft, and enable the hungry speculator to extend the range of his rambles and his chance of food. Already a few feeble threads connect the chemistry of our food with the *mechanical work* done by our muscles; when these have been securely fastened, from the higher vantage-ground acquired, our little bridge of knowledge may possibly be extended to embrace the phenomena of the geometrical instinct of the bee, or the cunning of the beaver; and our successors may even dare to speculate on the changes that converted a crust of bread, or a bottle of wine, in the brain of Swift, Molière, or Shakspeare, into the conception of the gentle Glumdalclitch, the rascally Sganarelle, or the immortal Falstaff.

At present such thoughts would be justly regarded as the dreams of a lunatic, and I must crave your indulgence for having mentioned them. The history of science is, however, filled with such dreams; some never realised; others converted by time into realities so commonplace that the genius of their originators is habitually forgotten or underrated.

During childhood and youth, the food that we eat is used for the double purpose of building up the tissues of the bones, the muscles, the brain, and other organs of the body; and of supplying the force necessary for work done, whether mechanical or intellectual. In adult life, the first use of food almost disappears, for the bones, the muscles, the brain, and other organs, have already reached their full development, and act simply as the media of communication between the food received and the work developed by it.

Let us take, as illustrations, the muscles and brain, regarded as the organs by means of which mechanical and intellectual work is done. These organs resemble the piston, the beam, and the fly-wheel of the steam-engine, and, like them, only transmit or store up the force communicated by the steam in one case, and by the products of the food conveyed by the blood in the other case. The mechanical work done by the steam-engine must be measured by the loss of heat experienced by the steam in passing from the boiler, through the cylinder, to the condenser, and not by the loss of substance undergone by the several parts of the machinery on which it acts. In like manner the mechanical or intellectual work done by the food we eat is to be measured, not by the change of substance of the muscles or brain employed as the agents of that work, but simply by the changes in the blood that supplies these organs—that is to say, undergone by the food used, in its passage through the various tissues of the body, before it is finally discharged in the form of water, carbonic acid, or urea.

The Divine Architect has so framed the animal machine, that moves and thinks, that the same blood which by its chemical changes produces movement and thought also repairs the necessary waste of the muscles and brain, by means of which movement and thought are possible; just as if the steam that works an engine were able, without the aid of the engineer, to repair the wear and tear of its friction and waste spontaneously; but no greater mistake is possible in physiology than to suppose that the products of the changes in the blood, by which mechanical or intellectual work is done, are themselves merely the result of the waste of the organs, whether muscles or brain, on the exercise of which that work depends.*

The ancients, who derived all their knowledge from observation, and not from experiment, were well aware of the double duty imposed upon food in early life—of producing both the *secular* and *periodic* variations of the body; or, in other words, of promoting growth, and of developing work. Their practical knowledge is summed up by Hippocrates in the aphorism—"Old men bear want of food best; next those that are adults; youths bear it least, more especially children; and, of these, the most lively are the least capable of enduring it."†

The food consumed in twenty-four hours, including air and water, undergoes a series of changes of a chemical character before leaving the body, in the form of one or other of its excretions. Some of these changes develop force, and others expend force, but the algebraic sum of all the gains and losses of force represents the quantity available for work. This work must be expended as follows:—1. The work of growth (*secular*). 2. The work of maintaining heat (*periodic*). 3. Mechanical work (*periodic*). 4. Vital work (*periodic*).

During childhood and youth the work of growth is positive, for a certain proportion of the food used is employed in building up the tissues of the body instead of being expended in actual work; it is, in fact, "stored up" in the body, as *vis viva* is stored up in the fly-wheel of machinery, and constitutes a reservoir of force that may be called upon at an emergency requiring sudden expenditure of force, or in case of illness, or in the gradual wasting of old age.

In adult life, and in old age, the work of growth ceases completely, except so far as is necessary to repair, from day to day, the small wastes of the organs employed in work; so that nearly the whole of the food employed is expended on the *periodic* work of the body.

Hence we can readily see the reason for the aphorism which asserts that food is more necessary for the young than for the old, and more required by those of a lively disposition, either of mind or body, than by others.

Hippocratic doctrine of innate heat.—Hippocrates was well aware of the connexion between food and animal heat, although he erroneously regarded the animal heat as an innate property

* The very skill with which provision is made for the repair of the waste of the organ used as the instrument of work may mislead the observer into supposing that the work itself may be measured by the waste of its instrument. Thus it has been shown by Mr. A. Macalister, that the heart, which has imposed upon it the necessity of working day and night without ceasing, during life, is furnished with double the usual supply of blood through the coronary arteries, which are injected twice for every single beat of the heart. If, indeed, it were possible to assume that all muscles wasted equally for equal quantities of work, and also to measure separately the products of that waste, we might then assume the waste of the organ as the measure of its work. Neither of these assumptions, however, can be admitted; for it can be shown that different muscles act under different conditions, more or less advantageously, so that equal waste would represent unequal works; and, also, it is impossible to separate in practice the products of waste of muscles from those of the general changes of the blood.

† Aph. I., 12.

of the body that caused an appetite for food, instead of being itself produced by food; if we transpose his cause and effect, *mutatis mutandis*, all his maxims as to animal heat are true. Thus, he says:—

"Growing animals possess most innate heat, hence they require most food;.....but the old have least heat, and therefore require the least fuel."* The cavities of the body are naturally warmest in winter and spring;.....in these seasons, therefore, most food must be given; and since there is more innate heat, more nourishment is required; as may be seen in youths and athletes."

These maxims, when translated into modern language, express the well-known fact that the chemical changes of food that take place in the body produce animal heat, and that the necessity for food to supply mechanical work is greatest with the young and active, while the necessity for the production of animal heat is greatest in the cold seasons of the year. The direct connexion of food with mechanical work is expressed in the following maxims:—

"There should be no labour where there is hunger"†—and its converse, "Let labour precede meals."‡

On principles such as those just given, the training of the athletes was conducted; and they were compelled to undergo a regular course, commencing with bloodletting and active purgation,§ and consisting of systematic muscular exercise suited to the nature of the contest intended, accompanied by a dietary, of which the chief ingredients consisted of biscuits and pigs' kidneys, washed down by a minimum of water. It is, truly, not much to be wondered at that those who survived the training were formidable in the boxing ring or race-course.

The relation of animal heat to respiration is referred to by Hippocrates in a remarkable maxim:—"Those persons have the loudest voices who have most [innate] heat, for they inspire the largest quantities of the cold air; and the product of two great quantities must be itself great."‖

Galen believed the heart to be the centre of "innate heat;" but he was well aware that increase or diminution of respiration caused increase or diminution of heat, and was intimately connected with it. Thus he says:—"Since, therefore, the heart is, as it were, the hearth and fountain of the innate heat with which the animal is pervaded," &c.¶ "The necessity for respiration is the greatest and most imperious guard of the innate heat."** "Those persons in whom the innate heat has been much cooled breathe but little and slowly."††

Lavoisier's theory of animal heat.—The doctrine of "innate" heat, taught by Hippocrates and Galen, ruled in Medicine for 1500 years after Galen's death; until it received its death blow from the genius of Lavoisier, who demonstrated in his celebrated memoir, read before the French Academy of Sciences in 1783, that the source of animal heat is to be found in the combustion of the carbon of the body by the oxygen of the air received into the lungs by respiration. Lavoisier's experiments were repeated and confirmed in 1822 by Dulong and Despretz; and have formed the starting-point for all modern investigations on the relation of food to work.

As already stated, the work done by food in the body may be divided into the work of growth, the work of animal heat, mechanical work, and vital work.

Lavoisier arranged his experiments so as to exclude almost all kind of work done, except that of animal heat. A guinea-pig was placed under a bell glass inverted over a surface of mercury, and a current of fresh air was allowed to circulate through the apparatus, being passed at its final exit through tubes containing caustic potash, which arrested the carbonic acid produced by the animal. In this manner it was easy to ascertain the carbonic acid excreted, by the increase in weight of the tubes of caustic potash during the experiment.

Lavoisier found that his guinea-pig, in ten hours, burned, on the average, 3·333 grms. of carbon; and this quantity of carbon he estimated from other experiments as capable of melting 326·75 grms. of ice at the freezing temperature.

The same guinea-pig was then placed in an ice calorimeter, and left in it for ten hours, during which time the heat of its body was found to have melted 402·27 grms. of ice at the freezing temperature.

If we use, instead of the coefficient of combustion of carbon employed by Lavoisier, that now generally adopted from the experiments of Favre and Silbermann, the quantity of melted ice represented by 3¼ grms. of carbon would become 364·78 grms., instead of 326·75 grms.

We are, therefore, entitled to say that the heat of combustion of expired carbon determined by Lavoisier is equal to

$$\frac{36478}{402{\cdot}27} = 90{\cdot}68 \text{ per cent.}$$

of the animal heat developed, which is regarded as 100.

Two years later, in 1785, Lavoisier laid before the Royal Society of Medicine of Paris an account of further experiments, also conducted on the breathing of guinea-pigs, by which he showed, that of 100 parts of oxygen absorbed by those animals, 81 only reappeared in the form of carbonic acid, and 19 parts disappeared altogether. Lavoisier considered that these 19 parts of oxygen were employed in the body in the combustion of hydrogen, the product of such combustion being water.

If we use Lavoisier's data just given, and the known atomic weights of carbon, oxygen, and hydrogen, we shall have, for 81 parts of oxygen in the form of carbonic acid, and 19 parts of oxygen in the form of water, the following quantities of carbon and hydrogen consumed by the respiration of a guinea-pig in the same time:—

$$\text{Carbon} = \frac{6 \times 81}{16}$$

$$\text{Hydrogen} = \frac{19}{8}$$

Multiplying these numbers by the heat coefficients of Favre and Silbermann, we find—

$$\text{Heat produced by carbon} = \frac{6 \times 81}{16} \times 8080$$

$$\text{Heat produced by hydrogen} = \frac{19}{8} \times 34462$$

It has been already shown that the heat developed by the combustion of carbon in Lavoisier's experiment amounted to 90·68 per cent. of the heat emitted by the animal; hence the heat produced by the combustion of the hydrogen will amount to

$$90{\cdot}68 \times \frac{19 \times 34462}{8} \times \frac{16}{6 \times 81 \times 8080}$$

=30·24 per cent. of the heat emitted by the animal. By adding together the heats due to the carbon and hydrogen, we find that Lavoisier's experiments, when fairly interpreted by the data of modern science, give the following results:—

Heat produced by the combustion of carbon and hydrogen	120·92
Animal heat	100·00

Finally, in 1789, Lavoisier published further experiments, by which he showed conclusively that the consumption of oxygen by the body is notably increased by three causes: 1st, by a lowering of the external temperature; 2nd, by the act of digestion; 3rd, by muscular exercise.

The experiments of Lavoisier were repeated in 1822 by Dulong and Despretz; and their results, when corrected, like those of Lavoisier, by using the modern heat coefficients of carbon and hydrogen, are as follows:—

The mean of Dulong's experiments on sixteen animals and birds is 90·6 per cent. of the animal heat given out; the lowest number, 85·5, belonging to a kitten sixty days old; and the highest number, 99·4, belonging to a puppy fifty days old.

M. Despretz obtained an average of 92·3 from sixteen mammals and birds; his highest number being 101·8, derived from an old female rabbit; and his lowest number being 84·2, derived from four owls.

The foregoing experiments left no doubt remaining in the minds of men of science as to the substantial truth of Lavoisier's doctrine of animal heat; and led immediately to a number of supplementary experiments, amongst the most remarkable of which were those of Regnault and Reiset.

Regnault directed his attention especially to the distribution of the oxygen absorbed by animals, between the carbon and hydrogen of their blood, or tissues, which had been laid down by Lavoisier in the proportion of 81 to 19. He found that the proportion was not a fixed one, but varied with the food in a very instructive manner.

The average of his experiments on fourteen animals, including worms, lizards, and insects, as well as birds and mammals, was—oxygen combined with carbon, 81·7; oxygen combined with hydrogen, 19·3—a result identical with that found by Lavoisier. The highest proportion of oxygen combined with hydrogen occurred in the case of chickens fed on

* Aph. ii., 14.
† Ibid. ii., 16.
‡ Epid vi., sect. iv., 28.
§ Ib., sect. v., 32.
‖ Epid. vi., sect. iv., 22.
¶ De usu partium, lib. vi., ch. 7.
** De diff. Resp., lib. i., ch. 4.
†† Ib., ch. 20.

meat, and amounted to 32 per cent.; and the lowest proportion occurred in the case of rabbits fed on bread and oats, and amounted to 1 per cent. only.

Still more recent experiments, made with improved apparatus and methods by Pettenkofer and Voit, in Munich, show, like those of Regnault, that the proportion of the oxygen employed in forming carbonic acid, to the whole oxygen absorbed, varies with the food, ranging in the case of a large dog from 52·4 to 148·2, according as the animal was kept altogether without food, or fed upon a mixed diet of meat and sugar. These investigations have also shown that under ordinary conditions, it is probable that a dog consumes nearly all the oxygen absorbed in the formation of carbonic acid.

Before leaving the subject of animal heat, it is worth while to estimate its amount in a manner that will bring it into comparison with ordinary mechanical work.

In Lavoisier's experiment with the guinea-pig, 402·27 grms. of ice were melted in ten hours; from this fact we find, assuming the latent heat of ice at 142° F., and 772 as Joule's coefficient for converting British heat units into foot pounds—

Mechanical work equivalent to the daily animal heat of Lavoisier's guinea-pig =

$$\frac{402{\cdot}27 \times 24 \times 142 \times 15{\cdot}432 \times 772}{7000 \times 10}$$

= 233310 ft. lbs.

As the average weight of a guinea-pig is 4 lbs., the preceding amount of work, representing animal heat, would be sufficient to raise the weight of the animal through a vertical height of

$$\frac{23310}{4 \times 5280} = 11{\cdot}05 \text{ miles.}$$

Ranke has shown, by experiments made upon himself, under various conditions of food and fasting, by means of Pettenkofer and Voit's apparatus, that his daily excretion of carbonic acid varied from 660 grms. to 860 grms. His weight was 67 kilos., from which fact, and the assumption that an English mile is 1600 meters, we obtain, employing the contents already given, the height through which the combustion of this quantity of carbon would raise the weight of 67 kilos. in twenty-four hours—

$$= \frac{760 \times 6 \times 8{\cdot}080 \times 423}{22 \times 67 \times 1600} = 6{\cdot}609 \text{ miles.}$$

The extreme values of the carbonic acid excreted—namely, 660 grms. and 860 grms.—would correspond to the heights of 5·74 miles and 7·48 miles respectively.

Pettenkofer and Voit succeeded in producing a range of carbonic acid excreted by a large dog, weighing 33·3 kilos., from 289·4 grms. to 840·4 grms.; the minimum corresponding to the tenth day of fasting from solid food, and the maximum corresponding to a diet of 1800 grms. of meat, 350 grms. of fat, and 1410 grms. of water.

It may be easily shown by a calculation similar to the foregoing that these excretions of carbonic acid correspond to the mechanical works of lifting the weight of the dog through vertical heights of 5·03 miles, and 14·62 miles respectively.

Combining together the preceding results, and expressing them all in the natural units of the weights of the animals lifted through a height, we find:—

Work due to Animal Heat.

Guinea-pig	11·05	miles.
Man	5·74	,,
Man	7·48	,,
Dog	5·03	,,
Dog	14·62	,,
Mean	8·784	,,

(*To be continued.*)

THE ETHER SPRAY USED TO ALLAY THE PAIN OF UPROOTING HAIRS.—M. Gailleton, of Lyons, has tried the spray in favus, sycosis, and also in impetigo seated in the beard, when it seemed advantageous to pull out the hair. When by means of the ether a given spot has become white and insensible, the hair is quickly uprooted without any pain being experienced by the patient, and the spray is directed to another spot whilst this process is going on, so that the operations succeed each other continuously until all the hair is removed.

ON THE NATURE AND TREATMENT OF PULMONARY CONSUMPTION AS EXEMPLIFIED IN PRIVATE PRACTICE.

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(*Concluded from page* 109.)

SUMMARY.

BY DR. C. J. B. WILLIAMS.

ON taking a retrospect of an experience of forty years in the treatment of pulmonary consumption, I can trace a remarkable improvement in its success, as judged by the results. During the first ten years of that period the beneficial effects of the treatment were very limited, being chiefly confined to incipient cases, and to those who were able at an early stage and for long continuance to resort to more favourable climates, such as can be obtained by voyages to Australia or India. My general recollection of the histories of the developed disease at that time is that of distressing tragedies, in which no means used seemed to have any power to arrest the malady; the tardative and palliative treatment employed was little satisfactory; and life was rarely prolonged beyond the duration of two years, assigned by Laennec and Louis as the ordinary limit of the life of the consumptive.

In the next period of ten years (from 1838 to 1848) a marked improvement took place in the results of treatment, apparently in connexion with the habitual use of mild alterative tonics, as they might be termed, particularly iodide of potassium with sarsaparilla or other vegetable tonic. These were first given in conjunction with liquor potassæ or an alkaline carbonate; but the lowering effect of the alkali led to the substitution of a mineral acid, generally the nitric; and a combination of this description (iodide of potassium, two grains; dilute nitric acid, fifteen drops; tincture of hops and compound fluid extract of sarsaparilla, of each one drachm; with an ounce of water or infusion of orange-peel) became the favourite prescription until it was superseded by something which was much more efficacious. Several of the earlier of the cases recorded were treated in this way, and with improved results in respect of the general health of the patients and diminution of the cough and expectoration.

It was in the latter half of this period that chemists began to produce cod-liver oil of sufficient purity and freshness to be fit for the human stomach; and I have no hesitation in stating my conviction that this agent has done more for the consumptive than all other means put together. And so far is this remedy from having "had its day and gone out of fashion," that in my experience its usefulness and efficacy have gone on increasing in proportion to the greater facilities for obtaining it in a pure state, and to the improvements in the manner of administering it, in combination with various tonics, and in connexion with certain rules of diet and regimen. Many of the cases narrated in the preceding papers are striking proofs of the efficacy of this remedy, not only in the general results of cure or prolongation of life, but also in detached passages of the abridged histories, in which improvement or deterioration in the symptoms corresponded respectively with the regular use of the oil, or its discontinuance.

The cases selected to exemplify the preceding papers have been taken from the records of my experience during sixteen years, up to 1857. They are a very small sample compared with the whole number under my care during that period; but they are selected, not as being more favourable, but simply because they remained under observation for a year and upwards, and therefore gave the opportunity of more correctly judging of the results of treatment than those seen for a shorter time; and although this very ground of selection implies that the cases eventually became chronic, yet many were acute in the first instance, and their surviving into the chronic state may fairly be ascribed to the treatment. In stating that the average duration of life in phthisis has during my experience of forty years been at least quadrupled, or raised from two to

eight years, is below the actual results as calculated by my son; for of the 500 cases, 380 were still living at the last report, and many of these are likely to live for many years to come. I may add further, that the results of the last ten years' experience, from 1857 to 1867, which have not yet been calculated, will, in all probability, be found still more favourable as regards the number of cures and great improvements, and the expectancy of life, although the time does not allow of such high figures in actual duration of life.

In conclusion, I will endeavour to give a brief general view of the treatment which I have commonly adopted. As we have been led to conclude that consumption is essentially a disease of degeneration and decay, so it may be inferred that the treatment for the most part should be of a sustaining and invigorating character. Not only the most nutritious food, aided by a judicious use of stimulants and of medicinal tonics, but pure air, with such varied and moderate exercise in it as the strength will bear, and the enlivening influence of bright sunshine and agreeable scenery and cheerful society, are among the means best suited to restore the defective functions and structures of frames prone to decay.

This is the most comprehensive view that can be taken of the means found to be most effective in the prevention and cure of consumptive diseases; but when we come to examine the details of cases we find that the treatment is by no means so simple a problem, and that varied and even opposite remedies are required to control the different morbid actions concerned in developing or in aggravating the malady. Inflammation is by no means an essential part of tuberculous consumption, and yet, as we have seen, many cases originate in inflammation, and in many more this process is mainly instrumental in aggravating and spreading the destructive ravages of the disease; therefore remedies that may be called antiphlogistic frequently have to be used in its treatment.

I apprehend that most practitioners in this country are agreed in considering that consumption should be generally treated on a tonic and sustaining plan; and that the nourishment and strength of the system should be supported by varied tonics and cod-liver oil, as well as by the most nutritive articles of diet. But when the disease is ushered in with symptoms of acute bronchitis or pneumonia, with its attendant fever and scanty disordered secretions, it is obvious that such treatment is wholly unsuited for the occasion; and that remedies of the mild antiphlogistic kind, such as salines, with or without antimony, blisters, and cataplasms, and sometimes even moderate leeching or cupping, will give most relief, and will prepare the patient for the safe administration of the sustaining class of remedies. In former years in this country (as still in many places abroad) the antiphlogistic and starving plan was carried on too long and too far; but it appears to me that there is now a tendency too much to the opposite extreme, so that consumption is treated too exclusively with tonics, stimulants, and full diet. I quite admit that this is the better extreme of the two; and it may fairly be stated that the sooner, and the more constantly, patients can be treated on this plan, the better. But in case of active inflammation, continued heat of skin, hard racking cough (dry, or with viscid and tinged expectoration), much pain or soreness of the chest or side, it answers well to withhold or withdraw the stronger stimulants and tonics, and for a time—it may be a few days only—to substitute cooling and soothing remedies, with moist epithems or counter-irritants on the chest, and, more rarely, local depletion. But this discipline, which is exceptional, should as soon as possible be replaced by what may be called the regular treatment by cod-liver oil and tonics, and a more generous diet. The transition need not be abrupt. So far as regards cod-liver oil, and the mild acid tonics, with which I generally combine it, the change may be made long before the inflammatory complication has subsided. A dose of these may be given after the morning and perhaps after the midday meal, whilst still the saline is taken in the evening and night, and whilst blisters or other counter-irritants are in full operation.

So soon as the nocturnal heat of skin subsides and the cough becomes less urgent, and the urine more free, the salines may be replaced by a mere cough linctus, if that be needed; the counter-irritation moderated, and the tonic, given with the oil, gradually strengthened by the addition of small doses of salicine, quinine, or iron. These two last tonics are of great use where they are well borne, as their influence in strengthening the muscular system and in improving the condition of the blood is greater than that of any other drug; but their use requires much discretion and watchfulness, for they often increase the lingering or intercurrent inflammations, with their attendant pain, constriction, cough, and viscid expectoration, and not unfrequently they derange the functions of the stomach and bowels. It therefore often happens, where the patient cannot be seen frequently, that it is safer to be content with a milder tonic—such as calumba, cascarilla, or chiretta,—which may be continued for weeks and months together in conjunction with the oil, than to give those that are more powerful, but which by occasional disturbances may prevent the continuance of the remedy.

But the great remedy, more essential and more effectual than any other, is the cod-liver oil; and we may well bestow a little consideration on the mode of using it to the best advantage.

It is now pretty generally admitted by the profession that the pure, pale oil, simply extracted from the fresh, healthy livers of the fish, is that most suitable for the majority of patients, as being less unpalatable and at least as efficacious as the impure kinds. Since I first recommended this pure oil (*London Journal of Medicine*, January, 1849) it has been so extensively prepared and used that it is now one of the most important articles in the materia medica; and the universality of its introduction is a strong proof of its claim to public favour.

On the mode of operation of the oil, and on the best methods of administering it, I have little to add to what I published twelve years ago ("Principles of Medicine," 3rd edit., p. 487). To that I must refer for details which would be too long for quotation here; but I may give the following brief summary of my opinions and experience on the subject.

Cod-liver oil, when taken into the system in sufficient quantities, and for a sufficient length of time, acts as a nutrient, not only adding to the fat of the body, but also promoting the healthy growth of other tissues, and in some way, as an alterative, counteracting the morbid tendency to the proliferation of the decaying cells of pus, tubercle, and kindred cacoplastic and aplastic matters.

That its efficacy depends much on its being absorbed freely into the blood, and through the circulation pervading all parts of the body, and thus reaching to the very seat of morbid deposits and formations.

That the more fluid part of cod-liver oil surpasses all other oils and fats in the facility with which it forms emulsions, which are tolerated by the stomach and readily absorbed into the blood, without causing the nausea and bilious derangement that commonly result from an excess of fat food. This peculiarity may depend on the biliary and other matters contained in the oil, which in other instances of disease is found to act beneficially on the liver and other secreting organs.

That the best time for the administration of the oil is immediately after, or, to those who prefer it, at or before, a solid meal, with the constituents of which the oil becomes so intimately blended that it forms a part of the chymous mass, and is less likely to rise by eructation than when the oil is taken into an empty stomach. From this chymous mass, the oil being absorbed through the lacteals with the chyle, is less apt to disorder the liver than if absorbed through the veins of an empty stomach.

That as the use of the oil should be continued for a long time—perhaps for months, or even years—it is of great importance to conciliate both the palate and the stomach by giving it in a vehicle which may agreeably disguise its flavour and strengthen the stomach to bear it. For this purpose an aromatic bitter, such as the compound infusion of orange-peel, acidulated with a mineral acid, both to help to cover the taste of the oil and also to suit the stomach, which should be duly supplied with acid during digestion, generally answers well. Syrup may be added according to the taste of the patient; or, still better, some bitter tincture, such as calumba, cascarilla, or quinine, in every case in which it is desirable to improve appetite and tone. In cases of peculiar weakness of stomach, with tendency to retching or nausea, strychnia, in a dose of from $\frac{1}{64}$ to $\frac{1}{32}$ of a grain, proves a most valuable adjunct to the vehicle. By its means I frequently overcome the fastidiousness of stomach arising from debility, hysteria, or indulgence in alcoholic liquors. Salicine is another efficacious alternative of the same kind. Either of these, although a powerful tonic, has none of the heating properties of quinine or iron. When the strong bitter taste is objected to, a pill, containing extract of hop or chamomile, or salicine, or quinine, may be taken after, or before, the oil and its vehicle.

The bulk of the whole dose of oil and vehicle should be small, so that it may be swallowed at a single draught; therefore the vehicle should not exceed a tablespoonful, with, at first, a teaspoonful of oil, to be gradually increased to a tablespoonful. The dose of oil should rarely exceed a tablespoonful

twice or thrice daily: when a larger amount is taken at a time, generally either it deranges the stomach or liver, or some of it passes unabsorbed by the bowels.

The acid may be varied according to circumstances. The nitric generally suits best in inflammatory cases, and those attended with much lithic deposit in the urine; but its tendency to injure the teeth is an objection to its long continuance. The sulphuric is more eligible where there is liability to hæmoptysis, profuse sweats, or diarrhœa. But in most cases, and for long continuance, I have found reason to prefer the diluted phosphoric acid, which may be termed the most physiological of the acids, tending to derange the chemistry of the body less than the others.

With some individuals the oil agrees so well, and so much improves their digestive powers, that they require few or no restrictions in diet; but this is not the case with the majority. The richness of the oil does prove more or less a trial, sooner or later, to most persons; and to diminish this trial as much as possible, it obviously becomes proper to omit or reduce all other rich and greasy articles of food. All pastry, fat meat, rich stuffing, and the like, should be avoided; and great moderation observed in the use of butter, cream, and very sweet things. Even new milk in any quantity is not generally borne well during a course of oil; and many find malt liquor too heavy, increasing the tendency to bilious attacks. A plain nutritious diet of bread, fresh meat, poultry, game, with a fair proportion of vegetables, and a little fruit, and only a moderate quantity of liquid at the earlier meals, commonly agrees best, and facilitates the continued exhibition of the oil in doses sufficient to produce its salutary influence in the system.

In case of a bilious attack coming on, indicated by nausea, headache, furred tongue, offensive eructations, high-coloured urine, and sometimes pain and tenderness of the right hypochondrium, it is necessary to suspend the oil, lighten the diet of the patient, and give blue pill or calomel with an aperient on alternate nights, and an effervescing saline two or three times during the day. A few days of this treatment will generally set the stomach and liver to rights, and the oil may be resumed, beginning with small doses as at first. In all cases during the use of the oil the bowels should be kept regular in action; and if this cannot be done by regularity of habit and diet, it should be effected by the use of a mild daily pill of rhubarb or aloes.

Such are the directions which have proved most effectual in the administration of a remedy which may truly be said to have so much altered the prospects of the consumptive as to give hope of cure in not a few, and of much prolonging life in by far the greater number. But to induce patients to follow these directions, and to overcome their aversion to a remedy which the prejudice of some represents as disgusting, and the experience of many may find trying to continue for so long,—the practitioner will often find it necessary to use all his powers of argument and persuasion. The great plurality of patients are amenable to reason, and are willing to follow any advice that is given with *confidence* and *clearness*. To those who demur or rebel it is generally expedient to tell the plain truth—that they have a serious disease, pretty sure to increase, and sooner or later to destroy life, if left to itself; but *here is the remedy*—the only one worthy of the name, which if carefully and faithfully used may arrest and cure the disease, and is pretty sure to retard it and prolong life more than any other known means. If the physician believes this himself he will rarely fail to carry his patients with him. I believe it firmly, and I rarely fail to make the patient take the oil, and to persevere with it, in the experience and conviction that it is essential to his well-being and improvement. The proportion of recusants, either from waywardness of temper, fastidiousness of taste, or from intolerance of stomach, altogether does not exceed five per cent.

Although my long experience assigns to cod-liver oil a place far above all other remedies in the treatment of pulmonary consumption and its allied maladies, it has taught me to believe also in the limited efficacy of certain other agents, and it would not be fair to pass these over in this brief summary of treatment.

I have already mentioned a combination of iodide of potassium and nitric acid with a vegetable tonic, as having distinctly wrought some good in consumptive cases before the pure oil was introduced. I still sometimes use this medicine in the rare cases in which cod-liver oil disagrees or cannot be taken, and I think that it is improved by the addition of a drachm or two of pure glycerine to each dose. Glycerine by itself is of little use, but it is valuable as a lubricant, and to sheathe the acrimony of mineral acids and other pungent medicines.

The hypophosphites of soda and lime, so strongly recommended by Dr. Churchill, of Paris, have in my hands proved decidedly beneficial in certain cases. They have been tried by Drs. Quain and Cotton, at the Brompton Hospital, with only negative results; but having met with several patients who distinctly ascribed their improvement to Dr. Churchill's treatment, I have thought it right to try them myself, both as a substitute for the oil and in addition to it. In the former way the results have not been generally satisfactory: the hypophosphite does not disagree, but there is no marked improvement as under the oil; and when they have been doing well under the oil, the patients generally lose flesh and strength when the hypophosphite is substituted for it. On the other hand, it has happened to me in several cases that a patient has long been taking the oil, and, after having derived great benefit from it, halts in his improvement, or even loses ground, and then the addition of the hypophosphite has been followed by a marked change for the better; flesh and strength have been gained, and the chest symptoms have been more or less improved. In these cases I have merely added four or five grains of the hypophosphite to the vehicle in which the oil is given, always selecting the phosphoric as the acid, and generally substituting glycerine for the usual syrup. Such precautions are necessary, because the hypophosphites are very unstable in composition; the addition of nitric acid, or mere exposure of the solution to the air (if not guarded with glycerine or a good deal of syrup), being sufficient to convert them into inert phosphates. In my mixture of the hypophosphite with phosphoric acid, I presume the hypophosphorous acid is set free, and is the active agent in the compound. How it acts is quite uncertain. I cannot say that I agree with Dr. Churchill's views on the subject, even if I understand them. These hypophosphites seem to increase the failing powers of respiration and circulation. Can this be by increasing the affinity of the blood for oxygen, so that it can attract it and maintain the blood-changes even under the increased difficulties and obstructions produced by disease?

Perhaps the efficacy of the sulphurous acid—Dr. Dewar's remedy for consumption—may depend on an influence not altogether unlike that of the hypophosphites. My experience of the use of the spray of sulphurous acid is limited in phthisis, and as far as it has gone has not been very encouraging. But I have found the spray a most useful and agreeable remedy in various affections of the throat, whether diphtheritic or aphthous; and it has proved cleansing and soothing in some cases of foul ulceration of the throat, affecting both larynx and fauces, generally syphilitic in origin, and sometimes ending in pulmonary consumption.

In connexion with this subject, I must notice remedies administered by inhalation, which are really useful in certain cases, chiefly those in which the larynx and trachea are much affected, and in those attended with convulsive cough or offensive expectoration. I have generally found the use of inhaling instruments fatiguing and unnecessary. A quart jug of hot water, with a napkin from over the nose down to and around the jug to confine the steam, is all that is needed. To the hot water is added the drug to be inhaled; and creasote or carbolic acid, iodine, chloroform, oil of turpentine, and juice or extract of hemlock, are the articles which I have found most beneficial. A few drops of one, or of several of these combined, being put into the hot water, the inhalation is practised through both mouth and nostrils without restraint or difficulty, and may be continued for five or ten minutes every night, and, if need be, repeated once or twice in the day. Although the chief operation of this medicated vapour is on the guttural and bronchial surface, yet a portion penetrates into the lungs, and is absorbed into the system; for iodine and oil of turpentine can be detected in the urine within a few minutes of the inhalation being made. Still, although proving very serviceable in certain cases, I cannot rank inhalation higher than as a subordinate remedy in the treatment of consumption. I may add, that the practice of painting the chest with tincture of iodine every night, as a gentle counter-irritant, is not without a certain influence in the way of inhalation; for a portion of the iodine evaporates, and slightly impregnates the air around the patient, and this atmosphere of iodine may not be without its influence for good.

The sulphurous waters of the Pyrenées are highly recommended by the French physicians in the treatment of consumption; and a few of my patients, after wintering at Pau, have found some benefit from the waters of Eaux Bonnes and Cauterets during the summer months. But in other cases, and these the greater number, more harm than good has resulted from their use. More or less excitement of the circu-

lation and respiration is generally induced by the sulphur waters, and instead of inducing expectoration and subsequent relief to the cough and breathing, the critical improvement has not taken place, and the patients have come away weaker and more oppressed than they went. With all respect for our brethren across the Channel, so far as regards their cleverness in diagnosis, I do not hesitate to say that they are far behind British practitioners in their skill and success in the treatment of disease in general, and of diseases of the chest in particular. The same remark applies pretty much to the German doctors and their water cures, whey cures, and grape cures. Except in a few instances with the waters of Ems, I have hardly known any British pulmonary invalids derive any permanent benefit from these modes of treatment; but I quite admit that they are sometimes useful when the pulmonary disease is complicated with gout, or decided disorder of the liver and digestive organs.

Of far more importance in the treatment of consumption is change of air and climate. It is of the greatest consequence to the phthisical invalid that he should breathe as pure an air as possible, and that the influence of this pure air on the blood and on the body should be increased by such gentle and varied exercise in it as his strength and the condition of his organs will permit. This is the great object of our sending him to a warm climate in winter, and to a high and dry locality in the summer, that he may be as much as possible in the *open air*, with its exhilarating and vivifying accessories of light, purity, and freshness, without the chilling operation of cold and wet in the winter, and the enervating and exhausting influence of oppressive heat in the summer. I cannot in this place pursue this important subject into the details of its application to the different forms and stages of disease, and the varieties of air and climate most suitable for them; but I may refer to my son's little work on climate* for concise information on these points. I would only add further, in conclusion, that several of the most successful cases which have been recorded in these papers are illustrations of the great benefits to be derived from well-directed voyages and change of climate, in addition to the treatment which has been summarised in the present pages.

In conclusion, I trust that the preceding papers have proved what I stated at the commencement: that, powerless as medicine is in the overwhelming and rapid types of pulmonary consumption, it has yet considerable influence over the milder forms; and *that under careful treatment life may be prolonged for many years in comfort and usefulness, and in not very few cases the disease is so permanently arrested that it may be called* CURED.

* The Climate of the South of France and its Varieties most suitable for Invalids. By Charles Theodore Williams, M.B. Oxon. 1867.

OPERATION FOR STRANGULATED HERNIA; ARTIFICIAL ANUS FOR WEEKS, AND ULTIMATE CURE.

BY A. J. MACKINTOSH, M.D.

ON the 7th of April last I was requested to visit Mrs. C——, of this town, who was suffering from strangulated hernia. Mr. T. G. Wales was then attending her as a private patient, but she was now transferred to me as a pauper. Mr. Wales called upon me in the morning, and acquainted me with the nature of the case and treatment adopted. The ordinary means failed to produce any beneficial effects on the hernia; hence the expediency of having recourse to an operation; besides, the symptoms were growing so urgent that immediate relief was imperative.

In a short time afterwards we operated, having the valuable assistance of Mr. J. K. Hyde. The patient is forty-eight years of age, and the mother of thirteen children; had double hernia for three or four years. She has a delicate constitution, but is neither excitable nor nervous.

The hernia was oblique inguinal on the left side, large and very hard, so much so that no appreciable impression could be made on it by manipulation; this was owing to firm adhesions. She vomited stercoraceous matter shortly before the operation. The pulse was above 120 at the wrist, very weak, and almost imperceptible; in fact, she was so prostrated and so exhausted that we considered it prudent to operate without the administration of chloroform.

When I commenced the operation I found the skin so closely and so firmly adhering to the hernia coverings that I was unable to pinch it up; consequently, I was compelled to divide it by directing the edge of the scalpel inwards. After dividing the integuments, the aspect of things appeared very unfavourable, either for a satisfactory operation or successful issue. The investing textures of the hernia were one agglutinated mass of adhesions; also, structural change had advanced to a considerable extent. Some parts were bluish-black, other parts having either a brownish or greenish hue, and rapidly decomposing.

To dissect in their order all the different layers which constituted the hernial envelopes was utterly impossible, as they were connected by false membranes into one inseparable and undefinable structure. After dividing a few false and fibrous membranes, we discovered three small perforations in the most prominent part of the hernia; and from these perforations faecal matter escaped, and was more or less diffused into the adjacent tissues. This manifestly indicated that a certain portion of the intestine was destroyed. Such being the case, we had no alternative but to make the three openings into one, thereby constituting an artificial anus. When that was accomplished, a large quantity of the contents of the bowels escaped freely.

During the first twenty-four hours subsequent to the operation, immense quantities of faecal matter came away through the wound. She progressed remarkably well under the existing circumstances, the new anus answering its purpose well, the motions passing regularly through it without much pain.

On the 13th of April (a week after the operation) I was surprised, on calling in the morning, when she informed me that during the previous night she endured severe pain in the lower part of the abdomen, and that she had a natural motion per rectum just one hour before my visit. She described that motion as "resembling a lot of marbles." I doubted the accuracy of her statements, and questioned the nurse to elicit the truthfulness of her remarks, and, to my no small astonishment, found that she corroborated her assertions. At the time, I believed that the peristaltic action of the intestines was restored, and that the contents evacuated were merely lodged in the anal side of the hernia. However, the sequence will show that other important changes occurred besides what I surmised.

On the 23rd of April she had a large motion per rectum, causing little or no pain. At the same time motions were passing daily through the artificial opening.

On the 1st of May she had another free evacuation through the natural passage, and, strange to say, since that date she had daily motions through the natural channel.

When the function of the normal passage was fairly restored the artificial wound gradually closed, and is now completely obliterated, devoid of either discharge or secretion, a little induration and a cicatrix representing the former situation of a hernia and an artificial anus. The patient is now attending to her domestic duties, absolutely free from any pain or suffering. She wears a truss over the hernia on the right side.

I cannot explain the peculiar change that occurred in this very singular and unique case after the operation, except on one hypothesis—that is, that the front half of the strangulated portion of the intestine was destroyed, permitting faecal matter to escape through it, the other or posterior half being entire and healthy, allowing certain quantities of matter to pass through it also; thereby keeping the calibre of the canal patent, while the greater amount was carried off by the other opening.

It is evident that nature repaired the injured parts most beautifully and successfully by patching the wound with false membranes and adhesions. When this woman dies, a post-mortem examination would disclose very curious and interesting facts in her case. It would be highly satisfactory to ascertain the primary state, and amount of mischief to the various parts that were involved by the hernia; also the manner in which nature healed the wound and kept the intestinal canal open. The exquisite powers of nature are truly wonderful in protecting and saving life in cases that appear to be beyond hope of recovery.

I am not aware that a similar case to this is recorded in the annals of surgery; therefore I am the more anxious to describe it in all its particulars.

Downham Market, Norfolk, July, 1868.

DEATH OF MIDDELDORPFF. — This eminent man, who has shed so much lustre on his professorial chair at Breslau, has just died at the early age of forty-four.

A Mirror
OF THE PRACTICE OF
MEDICINE AND SURGERY
IN THE
HOSPITALS OF LONDON.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI: *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

CASES ILLUSTRATING VARIOUS EFFECTS OF LEAD-POISONING.

(Under the care of Dr. MURCHISON.)

IT is at first sight somewhat remarkable that, considering how widely known are the deleterious effects of lead, whether introduced through the lungs, the stomach, or the skin, we should still see so many cases as we do in the metropolitan hospitals of persons suffering under one or more forms of poisoning by this metal. But it would seem probable that the frequency of such cases is rather to be attributed to the extreme susceptibility of certain persons to the influence of the metal than to any remarkable carelessness in the use of it. We have repeatedly inquired of such patients as to their habits in regard of cleanliness, and have seldom failed to receive assurance of the very greatest care having been taken on this point. In one of the men whose case is related below—a painter, under Dr. Murchison's care,—this was very marked. He told us that, with all the care possible, he rapidly felt the influence of the least exposure; whilst there were plenty of men in his "shop" who, to use his own expression, could "eat mouthfuls of the paint," and never suffer from it.

We publish the cases which follow, not because there was anything very unusual in any of them, but rather because their accidental coincidence in time and place served to lead attention to the subject which they well illustrate. In each case the blue discoloration of the gums was well marked. It was, as usual, wanting in sections where teeth had been lost, and was best seen where the teeth were incrusted with tartar. In one of the patients affected with colic, it will be noted that the temperature rose to upwards of 102°. Dr. Murchison told us that this was the second case which he had seen during the last six months in which this increase of temperature had taken place. The fact is an important one to remember, as there is usually so marked an absence of febrile movement in lead colic.

In three of the cases that association of gout with lead-poisoning which was first pointed out by Dr. Garrod* was noted. It will be remembered that Dr. Garrod has shown not only that lead acts as a powerful predisposing cause of gout, but that gouty persons are peculiarly susceptible of the influence of lead.

In collecting the notes of the different patients, of which we here present a condensed abstract, we received the courteous assistance of Mr. Maine, the physician's assistant.

CASE 1.—Daniel N——, aged forty-six, house-painter, admitted July 14th, 1868, with paralysis of extensor muscles of both forearms. This is most marked on the right side. He had been suffering for three or four days from colic. It seemed that for twenty years he had generally had an annual attack of colic, and that the local paralysis had existed for many years. He said, however, that when he managed to get away from paint, his arms so far recovered that he was able to write. There was a distinct blue line along the margin of the lower gum. He was ordered five grains of iodide of potassium three times daily, and a black draught; fish diet and porter. On the 17th, his colic being still unrelieved, half an ounce of castor oil, with twenty drops of laudanum and twenty drops of liquor potassæ in peppermint-water, was ordered to be taken every six hours till the bowels act. On the 19th, it is noted that the bowels have acted repeatedly, and the pain has disappeared. Since then the forearms, which are much wasted, have been galvanised three times a week, and there is already considerable improvement in their power.

CASE 2.—Charles C——, aged thirty, a japanner, who uses white lead and emerald-green in his business, was admitted on July 14th, with colic occurring every hour and lasting about twenty minutes. The pain was severe, but the abdomen was not tender or distended. There was vomiting after all food and drink. The bowels had been constipated since the 12th. There was a distinct blue line along the margin of the gums. His skin was cool, and his pulse 74. He was ordered half an ounce of castor oil, with ten minims of laudanum and twenty minims of liquor potassæ in mint-water, every four hours till the bowels act well; also to have a warm bath. Next day it is noted that he has taken four doses of the medicine, that the vomiting has ceased and the pain is diminished, but the bowels have not acted. Another warm bath was ordered, and a repetition of the medicine. On the 16th, the bowels had acted three times; and although there were still paroxysms of colic, the pain was comparatively slight. He was now ordered extract of belladonna, half a grain in a pill every six hours. This was followed by a bad night; and next day it is remarked that there is now no intermission of pain, but severe exacerbation. Now, too, he had some pain in the ankles, knees, and wrists. Pulse 100; tongue large, flabby, and lightly coated. Complains of nausea, and vomited once this morning. Pupils not at all dilated. Bowels scarcely open, but he has had frequent calls to stool. A warm bath was now ordered; a linseed poultice with laudanum to the belly; five grains of compound soap-pill every four hours until the pain should be relieved; and a simple enema to be given next morning. The enema was followed on the 19th by the bowels acting eighteen times copiously and the subsidence of pain in the belly. There was then no vomiting. There was, however, painful swelling and slight redness of the left knee. For this, ten drops of colchicum wine with alkalies every six hours was prescribed. The pain and swelling of the knee rapidly diminished; he had no return of the colic; and on August 4th he was discharged convalescent.

CASE 3.—William S——, aged thirty-two, barman, was admitted on July 18th, 1868. He had been employed in cleaning the pewter taps &c. of the beer engines, and on July 11th, about noon, was suddenly seized with severe pain in the belly and violent retching. The bowels previously had been quite regular, and he had eaten nothing unusual. From that time till his admission the pain constantly recurred, and there was also vomiting. The pain never quite left him, and was often rather severe. The bowels did not act from the time of seizure until slightly the day before admission, after an enema. He took a great quantity of medicine—castor oil, powders, pills, &c.—without any effect.

On admission, the patient complained of severe pain in the belly, coming on in paroxysms, oftener present than absent, and never quite gone. His abdomen was not distended nor tender, and there was free movement of the parietes. His pulse was 84; skin cool; tongue moist, with white fur. There was a distinct blue line along the margin of the gums. No swelling or tenderness in the inguinal regions. Ordered half an ounce of castor oil, with fifteen minims of tincture of opium, twenty minims of liquor potassæ, and one ounce of mint-water, to be taken every four hours until the bowels act well; and a warm bath directly. At midnight he was in such violent abdominal pain that fifteen minims of laudanum were given to him in addition.

July 19th.—10 A.M.: Slept shortly after the draught, and passed a good night, but the bowels have not yet acted.—1 P.M.: Pulse 116; skin feels hot; temperature 102·5°. During the last two hours he has been in severe pain again, with retching, but without vomiting. The bowels acted for the first time about half an hour ago, and since then he has been a little easier. His legs are drawn up, but the abdominal walls move freely, and are not tender. He was now ordered a simple enema every six hours, and five grains of compound soap pill every four hours; linseed poultices over belly. To omit the mixture.

20th.—The bowels have acted seventeen times very freely since the visit yesterday, and the patient feels much better. His pulse is 84. Temperature 100·5°. Tongue moist and clean. He is in no pain, and only complains of a feeling of soreness about the stomach. He has had two enemata. To continue a pill twice daily.

21st.—Slept fairly. The bowels have acted five times since last report, the motions being relaxed, but small in quantity. The pills were continued twice daily till the 27th, and were

* Transactions of Medico-Chirurgical Society, vol. 36, 1854.

then replaced by four grains of iodide of potassium three times a day. During this interval he had been doing well; the bowels were opened daily, but he felt very weak.

On the 29th he began to complain again of abdominal pain, which continued for two or three days, and ceased when the iodide of potassium was omitted.

He was discharged well on August 4th.

CASE 4.—John B——, aged forty-two, painter, was admitted August 2nd with symptoms of rather vague character. He had been suffering for three weeks with great pains in all his limbs, especially in the legs and left arm. He still complained of pain and weakness in the left knee, and he said that this joint, a week previously, had been swollen as well as painful. Tongue is furred; appetite very bad. Has a distinct blue line along the margin of his gums. Complains greatly of flatulent distension coming on after food, and accompanied by severe pain. He says he has had colic more than once, and his bowels are rarely opened without medicine. His pulse was 84; radial artery rigid. There was no abnormal sound of heart; lung-sounds natural; urine 1022, no albumen. Ordered six minims of colchicum wine, with fifteen grains of bicarbonate of potash, and one ounce of peppermint-water, every six hours, and a salts-and-senna draught immediately.

Aug. 3rd.—He has slept well. Has had occasional pains across the back, but is free from pain except in the left arm. His tongue is very slightly coated. Has no appetite. His bowels have been moved freely.

When we saw him on the 6th he expressed himself as feeling much better.

Besides the foregoing we saw, on one of our visits, an elderly man, who had formerly been in the hospital under Dr. Murchison's treatment, and in whom the train of symptoms was well marked: exposure to lead, colic, gout, albuminuria, epileptiform convulsion on two occasions, hemiplegia.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

A CASE OF EPILEPSY ASSOCIATED WITH LEAD-POISONING.

(Under the care of Dr. RADCLIFFE.)

A FEW days since we saw the patient whose case is here briefly narrated, and who presents other forms of nerve-disorder in association with lead-poisoning—viz., neuralgia, especially in the sciatic region, tremor, and epileptic seizures. He has only quite recently come under treatment.

Robert G. N——, aged forty, coach-painter. Has a blue line along the gums; there is constant tremor of the hands and sweating. Has had sciatica for three years, and rheumatic pains in legs, hips, and arms. Has once had colic. During the last two years he has had fits—from twelve to twenty in the year. He feels a cramp in the muscles of the jaw; his head is twisted over his right shoulder; he tries to speak, but fails to make himself intelligible; then falls, or rather throws himself down to avoid falling. Sometimes he scarcely loses his senses, but usually he becomes insensible for ten or fifteen minutes. Fourteen years ago he began to oversleep himself, perhaps twice a week; and during this he used to cry out aloud, and make faces, and stretch himself out. These attacks lasted for about six years, occurring sometimes twice a week. After this they ceased, and he suffered severely from rheumatic pains and sciatica, but no recurrence of fits till two years ago. There is subjective sensation of horrible stench—perhaps three days a week; and he often has "queer sensations" as though he were going into a fit. He is now taking five grains of iodide of potassium every four hours.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE TORSION OF ARTERIES AS A MEANS OF ARRESTING HÆMORRHAGE; WITH EXPERIMENTS.

BY T. BRYANT, F.R.C.S.

THE author commenced his communication by alluding to M. Amussat's original investigations on torsion made in 1829, and by giving some brief outline of the history of the subject. He noticed the earliest introduction of the practice into England by Mr. Costello in 1834, and expressed his belief that the practice had not been generally accepted because it was introduced before its time—that is, before the introduction of chloroform. He recognised the fact that within the last few years surgeons have become clearly dissatisfied with the application of the ligature to divided vessels, and enumerated the objections which have been brought forward against the practice. He gave full credit to Sir J. Simpson for having prominently brought forward the subject before the profession, and for having suggested his plan of acupressure, which is now under trial by the profession. He stated also that it was from Professor Syme's letter to THE LANCET of Jan. 4th that he had been induced to inquire into the subject of torsion and to make his experiments. The two methods by which torsion may be practised were then described—the "free" and the "limited." In "free" torsion, the end of the artery should be fixed by a pair of clasp forceps, and twisted freely. In "limited" torsion, the artery, having been drawn out of its sheath, should be fixed transversely about three-quarters of an inch from its divided extremity by a pair of clasp forceps, and held steadily; whilst with a second pair of forceps the free end of the vessel should be twisted freely, as in the former kind. The object of the first pair of forceps being to fix a limit to the twisting of the vessel, and prevent the artery being separated for any distance from its vascular attachments. Three or four complete revolutions of the forceps are enough for small arteries, six or eight for large. The author then passed on to relate his experiments on animals. The first six were upon the carotid and femoral arteries of the dog. In all free torsion had been employed to both ends of the divided vessel, and in all with success. The seventh and eighth experiments were upon the carotid artery of the horse. In these limited torsion was used, and in both with success. In all these instances the animals were subsequently destroyed, and their vessels carefully examined. Special notice was then drawn to the particulars of a case in which the author had applied torsion to the brachial artery, in its upper third, of an old woman aged sixty-eight. The torsion proved quite successful, but the patient died from thoracic complications, and this allowed an opportunity of observing the changes the artery had undergone. The physiological conditions of the arteries which had been subjected to torsion then received attention; the results of every experiment were carefully described, and the different points illustrated by drawings and preparations. The results of numerous experiments upon the arteries of the dead subject, both healthy and diseased, were then given, and these went to confirm in every respect the observations obtained from the experiments made upon the living. A careful *résumé* of the physiological effects of torsion was then made. Some remarks upon the experiments followed, and a comparison was drawn between the effects of torsion on the vessels, and the ligature, and acupressure. Some practical points connected with the application of torsion were noticed, and the necessity of employing right instruments was enforced. A general summary of the whole subject was then made, and the following conclusions read:—1. That hæmorrhage may with certainty be arrested by torsion from even the largest vessels. 2. That it is a safe and judicious practice in all cases in which the vessels are small or of moderate calibre; and that, as far as experiments and practice yet prove, it is equally so in arteries of the first magnitude. 3. That torsion may be "free" or "limited," the free method being applicable to vessels of moderate size, and even to the largest of the extremities, limited torsion being more adapted for the large and loosely-connected vessels. 4. That in torsion, as in the ligature, the permanent hæmostatic processes are alike due to the sealing of the divided inner and middle tunics; but that in the ligature there is only an irregular division of these tunics, whilst in torsion there is a complete division, separation, retraction, and valvular incurvation. 5. That in torsion the twisted cellular coat forms, with the retracted and incurved middle coat, the direct mechanical obstacle to the flow of arterial blood, in the same way as the compressed cellular coat does in the ligature, but that in torsion the twisted cellular coat and incurved middle coat become subsequently a permanent means of occluding the end of the artery, whilst the ligature of necessity becomes subsequently a source of irritation, and too often a means of undoing what has been done by nature's own hæmostatic processes. 6. That in torsion the twist in the cellular coat of an artery, the division and subsequent retraction, incurvation, and adhesion of the middle coat, and the coagulation of the blood in the vessel down to the first branch, are the three points upon which its temporary as well as permanent safety depends,

whilst the permanent safety of acupressure rests upon the last point alone, and its temporary effects upon the pressure produced by the needle. 7. That there is every reason to believe that when torsion has been successful on its first application, the fear of subsequent hæmorrhage is altogether groundless, for there is nothing, as there is in the ligature, to interfere with the physiological processes set up by nature to occlude the divided vessel, and, unlike acupressure, the temporary obstacle to the flow of blood becomes a permanent one. 8. That upon physiological grounds torsion has decided advantages over the ligature and the acupressure-needle, and that if subsequent experience confirms what has been hitherto observed in the experiments on animals and the application of the practice in the human subject, we shall have gained a point of no mean importance, and simplified surgery in no slight degree. The paper was concluded by the author stating his belief that the practice was a safe and valuable one in many cases, if not in all; that it was not a crude idea, based upon a theory spun out of a fertile imagination, for it had its origin in observation of nature's own processes; that it was based on the well-recognised physiological principles of natural hæmostatics; and that it was artificial only so far as the surgeon's art was employed in rendering these processes most available. Models, drawings, and preparations were freely used to illustrate the subject.

THE PROPAGATION OF CHOLERA.

A REPORT on the Cholera Epidemic of 1866 has just been completed by Dr. Farr, in which, with all the facts obtainable from the records of the Registrar-General's Office before him, he reviews the circumstances attending the outbreak of the disease in East London, and shows how entirely his original hypothesis of water contamination as the cause of the "explosion" is borne out by subsequent investigation.

Since that explosion occurred its causation has been discussed, and theories have been advanced and combated over and over again. "The waters of the East London Company," says Dr. Farr, "their reservoirs, their works, and their servants, have been examined before several tribunals, and it has all been done at leisure after the epidemic had subsided." But the original charge against the Company was made "in the midst of the tempest," on the faith of the "accumulated experience of previous epidemics, the known laws of the disease, and the facts of the case looked at comprehensively." The matter at issue was enshrouded in difficulties, but "the fate of the ship to some extent depended" on the warnings or suggestions which the Registrar-General had to offer on the spur of the moment, and the water was the element of danger so pointed out.

The total deaths from cholera in London (including the West Ham District, which forms part of the water-field of the East London Company) during the year 1866 were 5973, and by diarrhœa 3197; the two diseases causing altogether 9170 deaths. But these were so unequally distributed that, taking the population into account, the rate of mortality in the groups of sub-districts forming the several areas of distribution of the Water Companies varied in the following manner:—

	Deaths.		Death rate per 10,000.	
	Cholera.	Diarrhœa.	Cholera.	Diarrhœa.
Chelsea, Grand Junction, and West Middlesex	266	687	3·6	9·2
New River (separately)	661	846	7·8	10·0
New River and East London (in conjunction)	378	122	11·6	10·9
East London (separately) ...	3947	813	72·1	14·8
Lambeth, Southwark, and Kent	721	729	8·3	8·4
	5973	3197	19·3	10·3

It is the enormous disparity between the ravages of the epidemic in the eastern water-field and the rest of London that has to be accounted for; the cause of the cholera mortality up to the rate of 5 in 10,000, whether on the north or south side of the river, being taken as "explained by the diffusion of the cholera stuff through personal intercourse, sewers, and the slight contamination of the waters of the Thames and of the Lea after filtration by the water companies." The facts show that the epidemic cholera matter found its way in 1866 into every district of London; that its quantity varied, and was confined in every district within narrow limits, except in the water-field of the East London Company, where the cholera deaths also varied from place to place, but were nearly everywhere so excessive as to leave no doubt that an excess of cholera-matter (*cholrine*, as Dr. Farr names it) was distributed over that field. And this variation in the mortality—going to such an extent as that an inquirer would frequently find successive sections of a district in each of which several deaths had occurred, side by side with consecutive sections in which no death had happened—Dr. Farr says is analogous to those irregularities which are observed in games of chance, "for this reason, that the *cholrine*, no matter how distributed, is dealt out irregularly, and in various doses, in various states of activity, to individuals, who are all in exceedingly variable degrees susceptible or non-susceptible of the zymotic action, and differ in the greatest extremes in their command of remedies in both the premonitory and the advanced stages of the malady."

Passing to the means by which cholera was thus unequally diffused within the metropolitan area, Dr. Farr observes that, starting from the point (which may be taken for granted) that Asiatic cholera was by some agency brought into England in 1866, and that the disease is propagated by the cholera flux, the germs must have been diffused either (1) by personal contact, (2) by transmission through the air, (3) by dissemination in vapour of sewers, or (4) through the medium of water. Of the first of these theories Dr. Farr remarks that the free communication of the population in every part of London would natually lead to a free distribution of the disease, irrespective of locality. The atmospheric and sewer-vapour theories are thus dealt with:—

"The stoppage of the effects of the vast stream of air at the boundary line of one particular kind of water-supply, and the fact as well as the effect of the deflection of the wind, are neither reconcilable with meteorological observations nor with the known laws of pneumatics. The air is breathed by the whole population, yet only a certain number die of cholera; so the theory, on this score, encounters as great difficulties as the water theory, and may claim analogous solutions. ..... If the case is argued on the basis that Asiatic cholera is propagated by the cholera discharge (and no other basis deserves much attention), then it is evident that in the East Indies, under the ordinary practices of the population, the cholrine may be either wafted through the dry air of the dry season, or in the rains washed into the tanks; but in London, with the watercloset system and with sewers, the diffusion by the dry method must be rare and insignificant. From the surface of a saturated solution of cholera sewage in the Thames, in the Lea, in the Limehouse Cut, or in the stagnant sewers, it is exceedingly probable that a certain quantity of the cholrine rises. Several facts seem to show that this actually occurs. The quantity of this matter that is carried up by the volatility of vapour or by currents into air must be small in comparison with the quantity in the waters of the Lea and of the Thames at the in-takes of the water-pipes. The quantity of cholera-corpuscles in the air of East London could scarcely be greater than the quantity of vibriones detected by Dr. R. D. Thomson in sewer air or in cholera wards, and by Dr. Hassall in the vapour distilled from cholera rice-water teeming with vibriones; now the first quantities were small, the last *nil*."

The water theory alone remains to account for the remarkable localisation of the epidemic of 1866 in East London; the original hypothesis being that by the distribution of water from reservoirs receiving, by percolation or direct admission, the foul stream of the tidal Lea, containing the cholera germs from the dejections of the first cases which were traced by Mr. Radcliffe, into the Lea, the diffusion of cholera, and the localisation of its main attack within the limits of one water-field, were brought about.

Many objections having been raised to the water theory of propagation, we proceed to extract from Dr. Farr's Report

those passages which have reference especially to the "exceptions" advanced by Dr. Letheby and others to prove the inapplicability of the hypothesis. One of the objections was based on the enormous dilution to which any cholera germs that might have passed into the river from the first cases must have been subjected. That objection is thus met:—

"It may appear at first sight impossible that the cholera flux of one or more patients should produce any effects in the waters of a river like the Thames. The average quantity of this flux is large, but it has not been determined directly, and it varies with the severity or the duration of the disease. Applying Pacini's data to the fatal cases of different durations, it is found that the average volume of the dejections in a cholera case is equivalent to 8·24 litres. How many cholera corpuscles this quantity contains cannot be calculated. They are exceedingly minute. By Pacini's estimate 1000 millions would not occupy more space than a cubic millimetre; and there are a million cubic millimetres in a litre of water. The number of litres in the river Lea at high water is 1416 millions; at low water, 142 million litres. And, according to Vierordt, one litre of blood contains about 5069 million globules; consequently, the corpuscles in the eight litres of the flux from a patient, if in equal density, would run up to 41,566 millions. It is certain that the flux finding its way down the sewers would not be equally distributed in the river Lea for instance, but in the water would be in irregular masses like clouds in the sky; and that at some points a quart of the waters might contain hundreds or thousands of corpuscles capable of propagating their numbers by millions in the mucous membranes of the stomach and intestines. Whether the cholera corpuscle can propagate itself in sewage water at a high temperature is not yet known, but its diffusion is adequately accounted for on the hypothesis that it is only propagated in the living organism."

Dr. Farr then deals with some of the remaining "exceptions" to the water theory; and, in regard to the immunity of persons and places within the area of the East London water-field, he gives an illustration which shows the value of any argument derived from that immunity:—

"Eels, as we have seen, were found in the water of a certain number of houses in East London. To argue that in hundreds of other houses no eels were found, and that therefore the company never distributed eels in the district, would be absurd. The fallacy of such reasoning is transparent. It assumes the form: if no eels are found in the waters of a certain number of houses, none exist in the waters of any houses. As the eels are limited in number, they cannot be distributed universally; and the fact that they were discovered in one house and not in another, would depend on laws and circumstances so intricate as to make the ascertained distribution anomalous, but not necessarily more anomalous than the distribution of the lower forms of organic matter to which the phenomena of cholera in man are due. ..... In the districts supplied by seven water companies, *one* death by cholera occurred on an average in 159 houses; in the same number of houses supplied by the East London company from Old Ford, *eight* deaths by cholera happened on an average. A similar relation between this special impurity of the water and the mortality when cholera is epidemic has been observed repeatedly. The argument applies to workhouses as well as to houses. To cite a case in which the inmates of one or more workhouses are attacked by cholera, as they might be, without receiving the infection through water, and to cite other cases in which the inmates of workhouses supplied with East London water escaped, is to cite examples of the general law; as all that is to be accounted for is the excess of seven deaths, or sometimes less, and often more, in the several sub-districts that got their water generally, but not always, from the Old Ford pumps, which sometimes supplied fresh, and sometimes foul, water."

Dr. Farr refers to his facts* in disproof of the assertion that there was no coincidence of time in the outbreak of cholera in the districts supplied from Old Ford, and that a month elapsed in several districts and no outbreak appeared. "The comparison of the propagating cholera-poison with arsenic, which does not reproduce its like, is entirely illusory; but if arsenic had been distributed, like the water of the Old Ford pond, it would not have reached all the districts simultaneously."

* Table xxiv., pp. 56-7, of Appendix to Cholera Report.

Then it has been stoutly declared that the districts supplied respectively from Old Ford and from Lea-bridge are absolutely undistinguishable; but Captain Tyler's lucid report, and the evidence of Mr. Greaves, the company's engineer, before the Rivers Commission, leave no doubt on that point. Again, the assertion that the conclusions drawn from the experience of South London in 1854 are open to doubt, because "it has been found since that no one knew what water was given to the houses of any particular district," is disposed of by the simple matter-of-fact statement that "the two water companies of Lambeth and Southwark gave from their own books the names of the streets and the numbers of the houses which they respectively supplied; while the deaths in the houses supplied by each company, both in 1849 and in 1854, were abstracted from the books at the General Register office."

The immunity of North Woolwich and Stamford Hill is thus accounted for:—

"As the direct distance from the Old Ford reservoir to North Woolwich is above four miles, and the water appears to travel along one low arterial main, which is kept always full, it is evident that if suspended cholera-matter undergoes any change it will be modified before it reaches North Woolwich, and will necessarily be diluted as the heavier molecules fall down on the way. The main leading up to Stamford Hill (about three miles and a half) will by gravitation be prevented from conveying all the matter of a heavier specific gravity than water up to the height of that reservoir. But such a sudden influx of the pond water of Old Ford as is described by the witnesses would be injected at once with some velocity into the near empty pipes, yielding water on the intermittent system. And here one of the many advantages of the constant system of supply is evident: under it fresh zymotic matter is less likely to be thrown into people's dwellings at a distance.

"In the two remoter regions the epidemic took the milder form of diarrhœa, and this may be due either to the accidental diversion of the matter from their mains, or from its greater dilution and age."

In effect we understand Dr. Farr to enforce, as a matter of the first importance, the necessity of bearing in mind that the changeable nature of the cholera-matter, and its variable behaviour under different circumstances, are elements which must be kept constantly in view if erroneous conclusions are to be avoided.

But in addition to the evidence in support of the water theory which the circumstances attending the East London epidemic affords, there is a parallel case which, as Dr. Farr shows, confirms the soundness of the hypothesis that water is ordinarily the medium by which the germs of cholera are diffused. The evidence taken before the Commission of Inquiry into the outbreak of cholera at Newcastle-upon-Tyne in 1853 established the fact, that the distribution of impure water was coincident with the spread of the epidemic, and that the change to a purer source on a given day was immediately followed by the decline of the disease. And the parallel with East London is thus lucidly set forth:—

"In the suddenness and generality of the outbreak all over the two water-fields, Newcastle and East London, agree. All the various classes of people and all parts of the locality were attacked with an intensity varying to a great extent. The water was pumped before the outbreak at Newcastle from reservoirs lowered unusually, and replenished from the tidal stream of the Tyne, which was the common receptacle of the dejections. The water was pumped by the East London Company from reservoirs which were in immediate communication with the Lea river at a time when it was charged with the sewage and cholera dejections of West Ham and East London. The sewers and streets in both places were flushed and washed into the rivers at the height of the outbreak..... It is known that the engineer at Newcastle ceased pumping from an impure source on September 15th, 1853, and it is assumed that on August 1st, 1866, the East London engineer did the same. Now by making these days the centre of a group of deaths in three days, we find that the deaths, when the water was impurest, were 409 in Newcastle, 467 in East London; and if the hypothesis holds as to East London, then the numbers should decline by a similar law in both populations. This law the numbers obey.

"The number of deaths by cholera ran thus:—

	Newcastle.	East London.	
3 days, Sept. 14, 15, 16	- 409	467, 3 days,	July 30, 31, Aug. 1.
" (17, 18, 19	- 361	367 "	Aug. 2, 3, 4.
" 20, 21, 22	- 281	293 "	5, 6, 7.
" 23, 24, 25	- 219	238 "	8, 9, 10.

"If we change the initial central days to September 16th and to August 1st respectively, and so on, the relative proportions are not much altered; they become for Newcastle 404, 345, 254, and 187; for East London 476, 328, 265, and 215. The last three numbers for Newcastle, when the law of decline was in full operation, decrease in geometrical progression; while in East London the decline was also at a uniform rate in geometrical progression."

The analogous results yielded by these two great experiments have convinced Dr. Farr that it may now be laid down as an established law that water into which cholera dejections find their way produces cases of cholera all over the district in which it is distributed for a certain period of time; and that if the distribution is in any way cut short, the deaths from cholera begin to decline within about three days of the date at which the distribution is stopped.

HYSTERICAL VOMITING.

To the Editor of THE LANCET.

SIR,—I think so highly of Dr. Salter's pathological skill that I am not surprised to learn that he forgot to mention the main ground that justified his calling hysterical the case of vomiting lately recorded in your journal; but when a teacher in one of our metropolitan schools publishes an elaborate lecture on hysterical vomiting, and omits to tell his pupils that the womb was examined accurately, and found to be free from organic disease, he must expect to be questioned by other pathologists.

I am glad my question has been satisfactorily answered.

I am, Sir, your obedient servant,

Grosvenor-square, Aug. 1868. E. J. TILT.

To the Editor of THE LANCET.

SIR,—The disease called hysteria exemplifies in a marked degree the evils which arise from a faulty nomenclature. If vomiting be caused by reflected irritation of the hystera, or uterus, it ought undoubtedly to be called hysterical. But if it depend upon other causes, the term hysterical is not only erroneous, but mischievous, inasmuch as in attributing the symptoms to a wrong source it conveys a wrong impression, and misleads in respect of both diagnosis and treatment.

In a large number of cases the term hysterical is a misnomer. It would be better to describe as neurosis of the stomach a condition of that organ which is essentially atonic, but not necessarily complicated with a special relation to the uterus.

Long-continued observation in this class of cases has led me to the conclusion that not only the so-called hysterical vomiting, but hysteria itself, all the phenomena of the disease, and all the symptoms included in the hysterical category, do not originate with the uterus, but are caused simply by some source of irritation supervening upon a condition of *depressed nerve power from emotional causes:* that it is a nervous disease of general and not special origin. It may exist in conjunction with uterine irritation, or quite independently of such cause. The hystera, or uterus, is not necessary to its production, although that organ and its appendages may become implicated in the general disorder, but, I believe, by no means so frequently as is generally supposed.

It is a mistake to designate by a uterine name a disease which is not of uterine origin.

I am, Sir, obediently yours,

D. DE BERDT HOVELL.

Five Houses, Clapton, Aug. 3rd, 1868.

LITHOTRITY.

To the Editor of THE LANCET.

SIR,—My old friend and former fellow-student, Sir Henry Thompson, in his reply to my letter, evades the main object which I had in view in addressing you—viz., that to Mr. Coulson thirteen years ago we owe the introduction of the principle of the operation which Sir Henry Thompson himself now performs. I had hoped that this omission was unintentional.

Sir Henry Thompson writes as if he were the only person competent to practise lithotrity. For myself, I need only say that I studied under the same masters at home and (more recently with especial regard to lithotrity) in Paris, as he did. I am not therefore likely to accept his offer of further instruction.

I may remind him, however, that the Professors at our Alma Mater (University College) always taught us, by example and precept, to acknowledge most faithfully the work of our predecessors rather than to magnify our own performances.

I am, Sir, your obedient servant,

BUXTON SHILLITOE, F.R.C.S.

Finsbury-circus, August 3rd, 1868.

Foreign Gleanings.

ASPHYXIA FROM REGURGITATION OF CHYME INTO THE RESPIRATORY PASSAGES.

Two cases were lately published in *L'Union Médicale* of death produced by this accident. A third case has just been mentioned in the same journal, the subject being a man about forty, who at the Charité Hospital was looked upon as convalescent, and known to be a glutton. After a copious meal, he was found dead in his bed, not the slightest disturbance having been noticed by those occupying the neighbouring beds. On a post-mortem examination, the bronchi were found choked by chyme mixed with blood. The same fluid, without the admixture of blood, was filling the stomach. It is supposed that a violent inspiration had been the cause of this rapid passage of chyme into the bronchi, followed by immediate asphyxia.

DISLOCATION OF THE HIP OF SEVEN MONTHS; ATTEMPT AT REDUCTION; FATAL RESULT.

A man, twenty-nine years old, was received at the Pitié Hospital of Paris, on the 13th of May last, in the condition above stated. M. Broca attempted to reduce it, using a force of 480 lbs. No reduction was obtained, and the patient insisted upon leaving the hospital five days afterwards. A fortnight then elapsed, when he presented himself at another hospital, with the hip enormously swollen, and died the next day of peritonitis. The autopsy showed that the head lay in the ischiatic notch, that it was held firmly by bundles of the torn capsule, and that the cotyloid cavity was much shrunk. Pus was found in the capsule, in the iliac fossa, in the articular cavities, and had found its way into the peritoneum, through the obturator foramen.

DISCHARGE OF A PORTION OF SMALL INTESTINE AFTER THE OPERATION FOR STRANGULATED INGUINAL HERNIA.

M. Mazel publishes in the *Montpellier Méd.* of July, 1868, a case in which the above-mentioned phenomenon took place. The patient was forty-five years old, had never worn a truss, and was operated on the third day after strangulation. A portion of small intestine in a pretty normal state was returned; and the patient remained in a precarious state until the fourteenth day after the operation, when he discharged what he called a piece of skin. This proved to be a piece of small intestine, and the patient slowly recovered. Both Professor Benoit (of Montpellier) and the operator are in doubt respecting the mechanism of this gangrenous separation of intestine.

THE PARASITES OF GONORRHŒAL, CHANCROUS, AND SYPHILITIC SECRETIONS.

Numerous investigators have, for the last thirty years, endeavoured to explain venereal phenomena by the presence of microscopic creatures in the secretions, but no approach to certainty has as yet been made. One of the more recent observers, Prof. Hallier, calls the vegetable parasite which he has found in the above-named secretions "micrococcus," with varieties according to the kind of venereal complaint. He has further, in examining the secretions of glanders, discovered micrococci similar to those observed in syphilitic pus, thus establishing a supposed connexion between the two diseases. The value of Prof. Hallier's conclusions must of course be tested by further investigations.

THE LANCET.

LONDON: SATURDAY, AUGUST 15, 1868.

THE selection of Dr. GULL to deliver the Address in Medicine before the British Medical Association at Oxford always commended itself to us as a very happy one, and it has been abundantly justified by the address itself. The profession must have anticipated this address with considerable interest. Dr. GULL is, at present, we may say without offence, one of the most popular physicians in London. And although popularity in a physician is not always a proof either of greater learning or greater wisdom than is possessed by the less popular, yet it is not to be despised. It is at least interesting to know the character of those thoughts upon medicine which are generated by such a busy consulting life as Dr. GULL's. In this view the address will probably surprise many persons. It is scarcely the kind of thing which they will have expected. They probably hoped for some pleasant therapeutics; some happy and practical suggestions for the ready recognition of common diseases; some hints as to the management of sick human nature, of which Dr. GULL seems so great a master. Any such hopes will scarcely be realised. And yet Dr. GULL's address is not disappointing. It is all the greater for its generalisations, and its commentaries upon a few of the great medical doctrines of the period. It lets us see that the busiest and most practical physicians have leisure, not only to acquaint themselves with these, but to form very decided opinions upon them. Indeed, any careful reader of the address will see that all its doctrinal and general parts abound in suggestion for the clinical detection and treatment of disease. We shall content ourselves with noticing a few of the principal points made by Dr. GULL, very heartily commending the whole of his discourse to the study of our readers.

Dr. GULL is right in demanding an unstinted recognition of clinical medicine as a distinct scientific department. He says very truly, that the knowledge of all other sciences would be compatible with entire ignorance of the department of clinical medicine. The reverse of this, indeed, is not true. It would not be possible to have an intelligent knowledge of clinical medicine without some acquaintance with collateral sciences. But medical men must accept most of their information on collateral sciences from those who specially devote themselves to their study. What chance is there, for example, of busy physicians and general practitioners investigating the fine points of physiological chemistry which are at present disturbing the whole philosophy of LIEBIG's system of animal chemistry? Taking even our physiology and chemistry very much at second-hand, we have in clinical medicine *per se* a department big enough and difficult enough for the acutest intellect and the greatest energy. It will require these qualities "to see the facts of human organisation in their special relations, in which," according to Dr. GULL, "the very perfection of the work of the clinical student lies." Every individual and every several organ and tissue have an interest for the medical student, apart altogether from anatomical and physiological facts. The liability of tissues and organs to disease is wonderfully special. All we can yet do is to ascertain facts in this direction. Already we know a few that are very guiding in practice, as they are wonderfully inexplicable in theory. What can be more striking than the immunity of the jejunum from disease, notwithstanding its vascularity and the activity of its cell-growth? This is a purely clinical discovery, and, so far, is only of clinical use. But it suffices to show—what, in instancing it, it was Dr. GULL's design to show—that the clinical department includes facts so curious, so special, and withal so practical, as to justify the separate and devoted study of it in the light of histology and comparative anatomy and pathology.

Dr. GULL remarked, as we have often of late years had occasion to do, on the rarity of acute idiopathic disease as compared with its supposed frequency in former times. The works of the older physicians treat of little else than acute disorders, and they treated these in a very acute fashion. Now, excepting pneumonia, itself not very common, how rarely do we meet with acute inflammations, apart from special states of the system, or poisons introduced *ab extrâ*. The change, we believe, is not so much in disease as in our notions about it, and in the recognition by modern physicians of the relations of diseased conditions to time. A certain chronicity, if we may use the word, enters largely into our notions of the character of diseased processes. Excepting the case of idiopathic fevers and comparatively rare cases of acute inflammation, we are not apt to regard attacks of severe disease as really so recent and defined in their origin as they appear to the patient. In this connexion it is important to notice Dr. GULL's disposition to think less of the element of diathesis, or, to speak more accurately, of the difference between those various forms of perverted nutrition which we call inflammation, and cancer, tubercle, and other similar products.

"Although for practical purposes it is convenient to intensify the differences between cancer, tubercle, and the inflammatory process, we have abundant evidence of intimate relations between them. Thus the children of parents dying of cancer are not rarely tubercular, and those of the third generation are liable to various forms of chronic inflammation; whilst in the same families are healthy individuals, in whom we can discover no evidence of any special morbid tendency. It is not improbable that that which seems most special to us in cancer and tubercle may depend more upon gradation than change of diathesis, and that both are allied to more common degenerations."

This tendency in recent pathology to see no sharp line of demarcation between processes and deposits apparently so different, cuts two ways. It shows, on the one hand, how careful we should be in drawing conclusions from the termination of particular cases that we had dogmatically classified; and on the other, it justifies every hopeful effort in hygiene and in medicine for maintaining or restoring the nutrition of tissues even in individuals whose special history is unfavourable. We may be sure that this special history is of the greatest moment as a guide to the physician, whether or not it be that diathesis is a more or less defined thing than we have been accustomed to think. Medicine has aimed lately as much at the treatment of diathesis as of disease. And in this largely consists its improvement upon older medicine.

A very important part of Dr. GULL's address is that in which he treats of an old doctrine that has lately been revived,

and is very lively in some directions—the doctrine of elimination of morbid poisons. Dr. GULL admits the elimination of gross chemical poisons, but decidedly shows reason why we should hesitate to apply this doctrine to the case of organic poisons, such as we suppose to be the cause of the various contagious diseases. It is impossible to exaggerate the importance of this subject, even in a therapeutical point of view. The eliminative doctrine has lately been warmly advocated and energetically practised with reference to the case of cholera. Moreover, a very distinguished physician has gone slightly out of his way to give it the sanction of his great name in regard to the case and the cure of cholera. In these circumstances we earnestly recommend Dr. GULL's observations on it to the profession. He sees some relic of the days of ignorance in the whole theory of zymosis as applied to contagious diseases. He still sees in our therapeutics the governing idea that disease is an entity to be cast out, rather than a process to be respectfully recognised and gently guided. "The recovery and subsequent immunity from fevers are produced," in Dr. GULL's opinion, "by a process of impregnation and assimilation, and not, as was early believed, and is still by some maintained, of elimination." If the cause of disease ever consists of an actual entity it is in the case of the contagious fevers. There is a distinct *materies morbi* which can be carried about and kept in drawers and on articles of dress. The same is probably true of cholera. But whether the diseased processes which this *materies morbi* gives rise to in the body are to be regarded as mere modes of elimination to be encouraged, or as special and inevitable tissue changes "leaving a permanent and residual effect," is still a question among physicians. It seems to us that Dr. GULL is right in his condemnation of the eliminative theory. It is a huge assumption in the present state of our knowledge to think that we can expel from the system morbific poisons. The secreting structures have no natural attraction for such poisons, and the destruction of these structures is apparently often a most fatal part of the diseases to which these poisons give rise.

We have more than exhausted our space without noticing several very important parts of Dr. GULL's address. If we have said enough to induce the study of it we shall be satisfied.

THE addresses of Professor ROLLESTON and of Professor HAUGHTON at Oxford, though in many ways they differ from each other, are yet remarkably alike in two important particulars. Each is the work of a physiologist who, though fully acquainted with practical medicine, is nevertheless by present circumstances placed outside the rush and struggle of "practice," and can look calmly at the great problems in science which from time to time present themselves. And each is notable for the courage and directness with which it approaches the consideration of questions which, for the sake of peace and quietness, inferior men would have preferred to leave enveloped in a doubtful haze of generalising expressions. What true scientific liberality is at its best was never more worthily shown; and we hardly know whether to give the greater credit to the Oxford professor, who, standing in the divinity schools of his own High Church and Tory University, had the courage to treat with open contempt the conceited ignorance of Mr. DISRAELI's attack on DARWIN in the interest of "the angels;" or the Dublin clergyman, who dared to tell his audience that *à priori* arguments from final causes and from the supposed generally benevolent designs of nature were capable of leading those who trusted in them to commit wholesale medical manslaughter. We may add that there was yet another respect in which the speakers resembled each other, which those who did not hear them cannot appreciate—namely, that each was singularly eloquent. Perhaps the brilliant wit and vivacity of the Irish professor were most calculated to take his audience by storm at the moment; but those who, remembering the easy and seemingly effortless flow of Professor ROLLESTON'S discourse, sat down to study it in detail in our columns of last week, must have been astonished to find that they had been guided by a facile hand through a wide range of the most difficult subjects in biology.

The task which Professor ROLLESTON had set himself was of the hardest; for scarcely anything can be more trying than the effort to compress into moderate space a view of the higher science which shall vindicate its practical utility; yet we think he has fully succeeded. A few of the topics which he made prominent deserve some mention here, because, though everyone should study the lecture for himself, there are some landmarks in it to which attention may well be directed. The first of these — the subject of the relation of pain and tenderness to spasm and relaxation respectively—is a perfectly amazing instance of the way in which the obvious teachings of science are neglected in practice. It is now seventeen years since the demonstration of the true functions of the sympathetic, and of the actual results of cutting off its influence, was made public; and for several years past the English authors to whom Professor ROLLESTON referred, have persistently pointed out the obvious inferences to be drawn from these facts, agreeing as they do, in a most wonderful manner, with the facts concerning pain and spasm to be observed at the bedside; yet to this hour we constantly hear and read remarks which tacitly assume the exact vital equivalence of (1) active pain; (2) passive tenderness; (3) the convulsive tendency; and (4) physiological hyper-repletion; an assumption which involves the largest number of fallacies which could possibly have been got together, and which it is astounding to find partly supported by such able authors as NIEMEYER and DUBOIS-REYMOND, not to speak of the multitude of practitioners in this country who still fly instinctively to local bloodletting for relief from pain or arrest of convulsion. Not less surprising is the incredulity which still prevails, not merely among the rank and file, but among high authorities, as to the direct interference of the nervous system in nutrition. The arguments, which are repeated *ad nauseam* by those who profess to be followers of VIRCHOW, as to the proof of independent local cellular life given by such experiments as that of passing a thread through cartilage, are properly met by the argument of Professor ROLLESTON, drawn on the one hand from such *positive* facts as those, e. g., which LISTER revealed in his papers on the concentration and diffusion of the frog's pigment, and many equally striking, and agreeing on the other hand with the important differences between the relative prominence of the local ganglionic system and the central nervous system, in the higher and the lower animals respectively. And here we take leave to say that there both has been and is a strange want of perception among many scientific men as to the true significance of that order of phenomena which is called the "differentiation of functions," and consists in the constant increase, in the upward scale of the animal kingdom, in the exclusiveness with

which special organs are reserved for *single* functions; an order of changes in strict correspondence with which the *concentration of the nervous centres* proceeds. So remarkable is this double and inverse order of variations, that the consideration of it alone ought long ago to have taught biologists that animal life is not a substance or an entity that can be measured out in terms of less or more, or qualified by such phrases as "sthenic and asthenic," but is in fact an equilibrium of matter and of forces which is peculiar in the case of each individual. Of this truth Dr. GULL gives a passing glimpse in his able address, which we notice elsewhere; but he is in error when he says that no English word has been invented for this equilibrium of forces, which really constitutes the life of each animal. Long ago, COLERIDGE* (in some degree stimulated by the speculations of SCHELLING) had sketched the outline of the doctrine, and invented a perfectly appropriate word to express the fact. And the term "Individuation," which he proposed, has since that time been prominently advocated by two English writers independently of each other.

Most useful, again, are Professor ROLLESTON'S illustrations of the value of abstract research and thought in connexion with some of the commonest incidents of every-day practice. No lesson more urgently requires to be impressed on the mind of the average British medical man than this: that without deep thought and study on abstract questions, the resources even of the most homely and so-called "practical" medicine could not be supplied or kept up, and that it is a base and suicidal ingratitude which sneers at those whose labours may (to a limited vision) seem "curious and *dilettante*, otiose, or even disgusting," but "may turn out ultimately to be essential elements in problems the solution of which promote directly and greatly the interests of man, and the glory of Him to whom nothing is common or unclean." We wish our space allowed us to comment on Professor ROLLESTON'S illustrations of this truth, and on others which we could adduce. And we should especially have liked to say some words on the orator's able defence of the principle—in some sense the opposite of the Newtonian "Law of Parsimony"—which bids us to "be most careful that we omit none of the circumstances which can by any possibility be of the essence" of any case which we are investigating,—a principle which it is no doubt true that certain schools of philosophy tend systematically to neglect.

On a future occasion we shall take an opportunity to analyse the very important address of Professor HAUGHTON, for which we have at present no space.

MUCH as we were disposed to think favourably of Mr. BAGEHOT as an able publicist and an enlightened man of letters, we confess our opinion of him has risen since his withdrawal from the contest for the representation of London University. Nothing throughout all his prolonged candidature has become him so well as his quitting it; and although he assigns reasons for the step which are not wholly satisfactory, still we feel that he has stated, if not devised, them more on account of his friends and supporters than on his own. The letter in which, as published in the newspapers, he explains to Mr. HUTTON his grounds for withdrawal is characteristically ingenious; but, somehow, it rather tends to enhance than to weaken the real strength of Mr. LOWE'S claims. This gentleman, according to Mr. BAGEHOT, has contrived to please both parties: the Tories by his repugnance to a vertical extension of the franchise; the Liberals by his avowed discovery of the "hour and the man" in Mr. GLADSTONE and his anticipated accession to power. By this means Mr. LOWE has secured in his favour "a curious coalescence of force," more than sufficient to render Mr. BAGEHOT'S candidature hopeless. With all this, Mr. LOWE is a man who, according to Mr. BAGEHOT, thinks for himself, and is not the mouthpiece of any party whatever. Has not Mr. BAGEHOT, then, in his attempted excuse for abandoning the contest, virtually confessed that Mr. LOWE'S claims are better grounded than his own? If Mr. LOWE, while preserving the utmost independence of thought, can also succeed in pleasing a majority of both parties in the constituency, is not Mr. BAGEHOT'S withdrawal a matter less of expediency than of duty?

Mr. BAGEHOT'S example, nevertheless, is one which the candidates for the representation of certain other universities would do well to imitate. While disposed to differ very strongly from Mr. LOWE on various questions of policy, he at the same time confesses that that gentleman is, in the main, a fitter representative of the constituency than any other candidate; and, accordingly, he waives his particular objections, and throws what influence he can into the movement for Mr. LOWE'S return. London University thus imparts to her northern sisters a lesson which they seem to stand in need of—the lesson, namely, of sinking personal ambition for the good of one's party and of the constituency. In this way the metropolitan seat of learning has obtained the representative who, on the whole, satisfies the wants and views of the great bulk of the electors, and who will command in the new Parliament that measure of respect, of influence, and of authority which even the most democratic communities of these islands are always ready to vouchsafe to high scholarship, force of intellect, enlightened views, and persuasive speech. It is, moreover, by no means unlikely that, in the event of the present Ministry being overthrown in the coming electoral struggle, Mr. LOWE will form one of the Cabinet, which is expected to succeed it under the leadership of Mr. GLADSTONE. What post of that Government he will fill is, of course, a matter of the merest conjecture; but whether it be the Home Secretaryship, or even the Chancellorship of the Exchequer, the University of London will have in her representative a statesman who can add the weight of official authority to whatever cause of her's he may be called upon to promote. In this point of view the London University is to be congratulated on her prospective representative; and no one can say that she has not fairly earned her good fortune by her enlightened moderation and impartiality.

The other and subsidiary grounds for supporting Mr. LOWE in his candidature are numerous in themselves, and have, besides, been too frequently advocated in these columns to demand or even justify repetition. Let it be said, once for all, that no fitter representative of the professional mind, whether the direction of its energy be science or public affairs, medicine or law, could be found than Mr. LOWE. Himself a most distinguished graduate of the University of Oxford, he has received from that ancient seat of learning all the good she is capable of imparting, while he has carried away from her none of those narrow or exclusive ideas which it is the

* "Theory of Life."

peculiar privilege of the University of London to be without. We are on the eve of a great national change—a pacific one doubtless, but none the less momentous that it is not conducted under the violent auspices which preside over similar transferences of power in the despotic or democratic governments of the continent. To preserve all that is really sound and productive in the old order of things, while friendly to all that is developing and fructifying in the new, will be the task of all statesmen worthy of the title—a task which, by intellectual constitution, moral sympathy, and incidental training, Mr. LOWE is peculiarly well fitted to discharge. In matters of general interest, his support will be found to aid whatever the University of London has traditionally identified with her principles and teaching; while in matters of professional concern, he will be none the less effective an auxiliary and champion that he is not a man of medical or even strictly professional connexion. His independent aid of the interests of medicine in particular will on that account be all the more powerful and successful. Indeed, of all the interests into which the University of London is divided, probably none will derive more substantial or enduring benefit than our own, from having given its hearty and effective support to the candidature of the Right Honourable ROBERT LOWE.

IN a luminous Report to the Registrar-General, Dr. FARR has written the history of the Cholera Epidemic of 1866, so far as it is deducible from the ascertained facts recorded in the death-registers, as well as from information on many important points connected with the general characteristics of the disease itself which has been drawn from the observations of the best official and other writers thereon.

The Report enters fully into all the circumstances attending the "explosion" of cholera in the eastern districts of the metropolis; and as the investigation undertaken at the time by THE LANCET went far to corroborate the theory first advanced by Dr. FARR—that the remarkable localisation of the outbreak was caused by the distribution of water charged with specific impurity,—we have given in another part of our columns a *résumé* of that part of the Report which deals with the East London epidemic. We apprehend that, to an unbiased mind, the elaborate array of facts which Dr. FARR has set forth with so much skill, as the result of great labour and research, will render irresistible the conclusions at which he has arrived in regard to the influence of the water-supply in the causation of the epidemic.

Without intending to go into the matter argumentatively on this occasion, we may refer our readers to that part of Dr. FARR's Report bearing on the so-called "dilution" of the cholera-germs existing in the dejecta of the first cases in Priory-street, Bromley, after they had been traced by Mr. RADCLIFFE as having passed into the Lea. Ridicule was attempted to be thrown on the connexion thus assumed to be established between the first cases and the subsequent infection, first, of the Lea, and subsidiarily of the reservoirs of the East London Water Company; the "homœopathic dose," as it was called, was the subject of cheap witticism amongst those who sought to make it believed that cholera-germs, like alcohol, are capable of dilution to the vanishing point.

But to complete the chain of evidence on which the water-theory of cholera diffusion rests, the parallel case of the Newcastle-upon-Tyne outbreak in 1853, as described by Dr. FARR, is most conclusive. There, as in East London, the cessation of the supply of water from an infected source, on a given day, was followed by the immediate decline of the disease; the coincidence in all the chief features of the two epidemics being singularly exact. And from these great "experiments," as they are called, Dr. FARR deduces "an established law that water, into which cholera dejections find their way, produces cases of cholera all over the district in which it is distributed for a certain period of time." The lesson, therefore, for the public to learn from that experience of cholera, in regard to the supply of water, is too obvious to admit of a moment's doubt; and we shall hope to find that it has not been lost upon the Royal Commission on Water-supply.

Dr. FARR'S report is full of interest, however, in respect of many other questions connected with cholera. He has chapters treating of the influence of elevation, density, sex, age, duration of fatal cases, &c., on the mortality caused by that disease; he enlarges upon the efficacy of preventive personal measures as illustrated in various ways; and, finally, gives his own views on quarantine and the International Cholera Conference. In a bulky appendix there are many most valuable tables of facts and calculations, notes on cholera in the several districts, meteorological phenomena, a very complete account of the works &c. of the London water companies, and copious extracts from the Weekly Returns published during the epidemic in London and now otherwise out of print. A most careful and elaborate alphabetical index to the whole work completes a volume which is certain to excite great interest, some hostile criticism, and much satisfaction that the public service numbers amongst its responsible members one so well able to maintain the high scientific character of the medical profession as Dr. FARR.

Medical Annotations.

"Ne quid nimis."

THE OPHTHALMOSCOPE IN DISEASES OF THE NERVOUS SYSTEM.

M. BOUCHUT has just sent to the Academy of Sciences of Paris the results of his more recent researches on the utility of the ophthalmoscope in diagnosticating diseases of the cerebro-spinal system. Through the novelty and interest of the subject we are induced to sum up briefly the more striking features of this memoir. Most of the diseases of the membranes of the brain and spinal cord being accompanied by optic neuritis, neuro-retinitis, inflammation of the choroidal membrane, and papillary atrophy, it can be understood how the ophthalmoscope enables us often to detect in the interior of the eye disorders of circulation, of secretion, and of nutrition, which indicate an organic disease of the cerebro-spinal system. It is through the anatomical and physiological connexions of the eye with the spinal cord and brain that we may explain the law of coincidence of optic neuritis with organic injuries of the nervous system. Each time that some violent impediment to cerebral circulation is brought on by the existence of some injury of the cerebrum and of the spinal cord, papillary and retinal hyperæmia is the consequence. When it is the brain which is the seat of acute or chronic phlegmasia, the inflammation may extend to the eye by following the course of the optic nerve. On the other hand, diseases of the anterior columns of the cord may, through the anastomosis of

the parts with the great sympathetic nerve in the situation of the two first dorsal pairs, produce in the eye various phenomena of papillary hyperæmia, which bring on at a subsequent period wasting of the optic nerve.

These facts show through what mechanism diseases of the nervous system stamp themselves on the eye so as to be detected by the ophthalmoscope. Other results are mentioned by the author which may be of use whilst determining the diagnosis. Thus the optic neuritis and the neuro-retinitis produced by the acute or chronic diseases of the nervous system are generally observed in both eyes; in cases of injury of the brain, or of its membranes, optic neuritis is habitually more marked in the eye corresponding to the hemisphere which is more seriously altered; changes of the optic nerve and retina, complicated by disorders of sensibility, intellect, and movement, invariably indicate an organic disease of the encephalon. It may be added that the alterations of the optic nerve and the retina should not be isolated from the other symptoms of the morbid condition. When considered thus, detection of their presence gives to the diagnosis an undeniable certitude.

The author concludes by naming the diseases of the nervous system in which optic neuritis and neuro-retinitis are observed, and he draws up the following list:—Phlebitis of the sinuses, acute or chronic meningitis, chronic encephalitis, cerebral hæmorrhage, tumours of the brain, contusion and compression of the brain, chronic hydrocephalus, abscess of the brain, acute myelitis, locomotor ataxy, essential or idiopathic contraction, and certain cases of epilepsy, of paralysis, or of neurosis, associated with an organic lesion of the nervous substance.

PURIFICATION OF SEWAGE.

MR. LEUNIG, the English patentee of Lenk's process for the purification of sewage, has submitted to Professor Voelcker, for analysis, samples of the Tottenham sewage taken before and after the application of the process. A sample of the sewage in its natural or "raw" condition contained in the imperial gallon 367·70 grains of suspended matter (whereof 225·60 grains were organic and 142·10 grains mineral matter), and 91·10 grains of matter in solution; and it had a most offensive smell. The sample of deodorised sewage was clear and inoffensive; it contained only 3·01 grains of suspended matter, and 63·39 grains of matter in perfect solution. Lenk's process therefore reduced the total impurities per gallon from 458·80 grains to 66·40 grains, nearly the whole of the suspended matter being removed, with a large proportion of the soluble organic matter; the mineral matter in solution is increased by the process almost entirely by the addition of sulphuric acid, which, from 1 grain in the gallon of raw sewage, became 19 grains after deodorisation. Professor Voelcker's opinion is thus summed up:—

"Lenk's deodorising liquid certainly effects a ready precipitation of suspended sewage matters, and at the same time removes a very large proportion of the obnoxious soluble refuse matters. The sample of deodorised Tottenham sewage examined by me certainly was very satisfactorily disinfected. Sewage after efficient treatment by Lenk's process, in my opinion, may be poured into a watercourse without causing a nuisance like ordinary sewage."

As all questions of sewage disposal are mixed up more or less with financial considerations, we may remark that analysis of a sample of the sewage deposit obtained by Lenk's process satisfied Professor Voelcker that in a *perfectly* dry state the deposit would be worth to the farmer about £2 2*s.* per ton; in a less dry but still in a powdery condition (allowing, that is, for the retention of from one-fourth to one-third its weight of water) the value of the deposit is estimated at from 25*s.* to 30*s.* per ton. The process "simply precipitates organic fertilising materials, and, unlike the lime process, introduces into the deposit no appreciable amount of a bulky and useless material." Professor Wöhler of Göttingen has also reported satisfactorily of this process.

Another important series of experiments has been made at Leicester by Messrs. Sillar and Wigner, of London, the proprietors of a process for disinfecting and utilising sewage, which was also lately tried at Tottenham. At the Abbey Meadow outfall this process has been conducted on a much larger scale, and with even greater success. Some 1,728,000 gallons of sewage were dealt with, the precipitating compound being used in a quantity of about one ton, the bulk of which was clay and alum. Of these there were twelve hundredweight and four hundredweight respectively, and to them charcoal, coke, blood, and other ingredients are added in small quantities. After being mixed in water, they are pumped gradually into the sewage as it flows into a large tank, in which the settling takes place. The sediment is afterwards taken up and poured into the flowing sewage five or six times over, and still proves effectual as a precipitator, and acts much more rapidly than the lime process at present in use. The result, we are assured, is that over 80 per cent. of the ammonia in the sewage is extracted, and a manure produced which is worth fully £3 10*s.* a ton, while the water flowing off is clear and apparently thoroughly purified. The Rivers Commission (Sir W. Denison, chairman) recently visited the works, and the process was exhibited to them in detail.

Sufficient warrant is thus given for the experimental application of some such process to places which, like Hastings and other seaside towns, are at present constrained to pour their sewage in its full defilement into the sea, for lack of any simple yet effective and economical method of filtration or other mode of purification. If so desirable an end as the lessening of the amount of filth now conveyed direct from sewers into rivers and the sea can be attained by the simple means indicated by Lenk's or by any other process, the sooner it is set about the better in every way.

THE HOSPITAL FOR DISEASES OF THE THROAT.

IT is with some pleasure we perceive that the Committee of Management — or whoever may be responsible for this sort of thing—is made up of a very penetrable material after all. Within the memory of some of the inhabitants there was a board affixed to a lamp-post in Regent-street, at the corner of Beak-street, directing those with throat affections to an hospital for their special relief. It formed at once a pleasant and familiar sight to the neighbouring tradesmen; but one fine morning lately they observed, with what must have given them momentary spasm of the windpipe, that it was gone. Its mysterious disappearance caused inquiry, and this elicited the fact that some men had, with the aid of a ladder, removed it.

It appears something like a trifling misgiving on the part of your enemy when he withdraws an outlying picket or sentry. Can it be that the citadel itself is in danger? If some one, without the aid of a ladder, were to go and close the hospital itself it might cause a passing lump in the throat of an hysterical patient, but there would still be Dr. Mackenzie, holding the post of physician to the London Hospital, to whom our throats could be entrusted in one of its wards for treatment.

The multiplication of special hospitals for every imaginable ailment, and the want of a holiday at the end of a hot season, are irritating, it must be allowed; but we have no desire to be caustic and ill-natured. The thing was a mistake, for which there was this excuse—that special hospitals have, unfortunately, been the fashion. Suppose the officials of this institution confessed as much, and determined to depart from a fashion which was becoming a bore, to say the least of it. Bigger men have yielded before now to the pressure of public opinion, and gained for themselves credit and popularity by their concession. Perhaps the

managers of the Throat Hospital might try to earn a reputation in this respect. With all the good that is being achieved, we doubt whether an alteration in their method of doing it would appreciably swell Dr. Farr's tables of mortality from throat diseases after all.

DR. LOGAN ON THE ARMY MEDICAL SERVICE.

WE were last week enabled to give our readers a short account of the proceedings at Netley on the termination of the Medical Session, and the first occasion on which the Herbert Prize has been awarded. Dr. Logan, considering, we presume, that it afforded him a good opportunity as the head of his department to impress upon his hearers the views which he held of the position and future prospects of his officers, entered at some length into this subject. We have no verbatim report of his speech, but we give its substance as reported to us, because he would probably wish his words to pass beyond the place, and reach others than those to whom they were addressed. After congratulating his officers on the favourable reports which had been made by the professors and officials at Netley, he urged upon them the importance of discipline in the services. In an age which was an eminently critical one, when people were manifesting an unusual impatience of control, political, moral, and intellectual, it was scarcely to be expected that the army or medical officers would escape its influence. But if an army is to retain its main characteristic, there must be discipline; a medical officer should manifest a spirit of ready and hearty obedience to the commands of his superiors, and strive to contribute towards the common good by a courteous, thoughtful, and respectful expression of his opinion to his commanding officer when necessary. Medical officers must, after all, make their own position by the display of their personal attributes, and not by reliance on a relative rank merely, and they should deem any prominence gained by the sacrifice of discipline as a false position. A medical officer, said Dr. Logan, requires to be, in academic phrase, a double first; he is expected to hold an exceptionally high scientific position in his regiment or in any strictly military community. If he fails here he lacks that which he will find it hard to assume, and it will be more than ever necessary that he should possess the other requisites,—namely, the qualifications, the character, and the tastes of a gentleman. Dr. Logan counselled young medical officers, therefore, to attain something more than professional knowledge, by applying some of their leisure to the study of general literature, and the cultivation of their tastes by works of art. Men of this stamp would always make and retain a high position. There is doubtless much that is very sensible and true in what Dr. Logan urged. We have already reported the substance of the remainder of his address.

THE NEW EXAMINATIONS FOR WOMEN AT THE UNIVERSITY OF LONDON.

AT the last meeting of the Senate of the University of London the new regulations for the examination and certification of women were finally adopted. The general examination will be held once in each year, commencing the first Monday in May. Candidates must show by proper certificate that they have completed their seventeenth year, and pay a fee of £2 previous to being admitted to the examination, which is ordered to be conducted mainly by printed papers. The pass subjects are Latin, with grammar, history, and geography; any of the following languages—Greek, French, German, and Italian; English language, history, and geography; mathematics, natural philosophy, and either chemistry or botany. The Latin, French, German, and Italian papers will contain passages to be translated into English (the Latin and Greek subjects being selected a year and a half previously by the Senate), and easy English sentences to be rendered in the several languages named. The examination in English will consist of writing out the substance of a paragraph previously read by the examiner, explaining the grammatical structure of the language, the composition on a subject suggested by the examiner, and other special matters prescribed from time to time. The candidate will also be tested as regards her knowledge of the outlines of English history to the end of the seventeenth century, and physical and topographical geography. In mathematics, the limit is Simple Equations and the First Book of Euclid. In natural philosophy, the knowledge demanded is such as may be obtained from attending an ordinary course of experimental lectures. In chemistry, the nature of heat, the chemistry of a few non-metallic elements, the general nature of acid bases and salts, symbols, and nomenclature: the atmosphere, combustion, water, and a few of the more common acids, with ammonia, are the selected subjects. In botany they are of an equivalent range. A pass-certificate is to be given by the registrar to the successful candidates who desire it. It has also been decided that any candidate who has passed the general examination above described may be examined for a special certificate of higher proficiency in one or more of the following subjects, either in the same or in different years, if she give notice two months before the general examination:—Latin, Greek, French, German, Italian, English, mathematics and mechanical philosophy, chemistry and natural philosophy, botany, human physiology, geology, and palæontology; political economy, logic, and moral philosophy; harmony and counterpoint.

The details of the regulations in regard to the two examinations may be obtained on application to the registrar of the University, at the offices in Savile-row.

SCOTTISH UNIVERSITY ELECTION.

THE attention of our readers was called last week to certain correspondence which indicated that the name of Sir James Simpson had been erroneously included in the published list of the supporters of Mr. Campbell Swinton. We are enabled to state authoritatively that the mistake arose from the results of a dinner conversation between Sir James Simpson and Mr. Swinton many months ago, in which the former signified generally that his support should be given to the latter if he became a candidate. When, however, Dr. Lyon Playfair some time afterwards signified his intention of coming forward, Sir James Simpson wrote and requested to be released from his promise to Mr. Swinton, which release, after several appeals were made, was given. It is important that this fact should be widely known, inasmuch as the presence of Sir J. Simpson's name in the list of Mr. Swinton's supporters has caused much surprise amongst the English graduates, and has therefore tended to injure the cause of Dr. Lyon Playfair.

It is needful once more to remind our readers that registration should not be delayed. Less enthusiasm on this point has, up to the present time, been shown than could be wished; and as none can vote who do not register, we strongly urge all those of our readers who can qualify to become electors, in order that they may increase their own influence in the House of Commons by supporting a candidate who, according to the testimony of Syme, Simpson, Douglas Maclagan, and Oswald Bell, "having had a regular and complete medical education, and been long associated with members of the profession in the discharge of public duty, perfectly understands their feelings, and cordially sympathises with them, in their wants and wishes."

WORKSHOPS REGULATION ACT.

MISS HARRIETT AXFORD, milliner and dressmaker, of Arabella-row, Pimlico, was recently summoned at the Westminster Police Court for permitting needlewomen in her employment to work after half-past four on Saturday afternoon, the 25th

ult., contrary to law. Defendant pleaded guilty. Dr. Aldis, medical officer of health of St. George's, Hanover-square, said that he called upon the defendant on the 10th inst., and cautioned her against infringing the Act; but as his visit had been productive of no good to the young women, for she continued to employ them beyond the legal hours, he thought it his duty to take out a summons. Mr. Arnold, after stating that they were not to be worked to the prejudice of their health, sentenced the defendant to pay a fine of 20s. and 8s. costs, or fourteen days' imprisonment.

M. BROCA AT NORWICH.

A VERY interesting discussion on Aphasia is likely to take place at the British Association meeting at Norwich. M. Broca, whose anatomical researches in connexion with aphasia have done so much to clear up that difficult subject, will be present, and will doubtless speak in the discussion on Dr. Hughlings Jackson's paper on the same topic. It will be no small attraction to the meeting that visitors will thus have the opportunity of immediately comparing the best English and the best French views on the pathology of this remarkable disease.

THE PLYMOUTH BOARD OF GUARDIANS AND DR. STALLARD.

A STORMY meeting of the Plymouth guardians was held last week. An influential minority, headed by Rev. Theophilus Bennett and Rev. T. W. Freckleton, endeavoured to rescind the report of a committee which had been appointed to investigate the condition of the workhouse sick wards. These gentlemen were continually interrupted in their endeavours to show the accuracy of a report made by Dr. Stallard. The motion to rescind the report was negatived, but the Rev. Mr. Freckleton observed that he was thoroughly satisfied with the investigation which had been made, and that his ends would in the long run be answered. It is interesting to know that many improvements have been effected, and that a night nurse will be forthwith appointed.

EPSOM COLLEGE AND ITS MEDICAL SCHOLARSHIPS.

WE regret to hear that for the current year there are no eligible candidates among the pupils of Epsom College for the Free Medical Scholarship of University College, which, in addition to a free medical education, is of the annual value of £50, and tenable for four years; and the Scholarship of St. Bartholomew's, which entitles its holder to a free entrance to all lectures and hospital practice. The former scholarship is designed for the exclusive benefit of the foundation boys; the latter is open to the entire school. Why there are no candidates we should be glad to be informed.

THE HEALTH OF PARIS.

SOME alarm has recently been entertained in Paris touching the possibility of a fresh outbreak of cholera. The extraordinary sultriness of the weather, and its necessary consequences, such as the ingestion of unsound meat and of large quantities of impure water, added to the coincidence of the fruit season, has caused a veritable irruption of diseases of the alimentary canal—diarrhœa, cholerine, &c. The mortality, particularly amongst children, has increased rapidly. Both in private and nosocomial practice, almost every shade of gastro-intestinal disease is to be observed. In each of the hospitals of Paris, one or two cases of cholera, presenting most of the features of the disease, have been admitted. The fear of an epidemic was therefore gaining ground even amongst the medical community. It is to be hoped that the communications which were made in connexion with this subject at the last meeting of the Academy of Medicine will have the good effect of reassuring the public. Professors Tardieu and Béhier, and M. Husson, the director of the Assistance Publique, or governor-general of all the hospitals of Paris, spoke successively upon the present state of public health, and confidently asserted that there existed no signs of an impending epidemic. M. Tardieu appealed to the evidence of his hospital colleagues in support of this opinion. M. Husson remarked that each summer brought a renewal of gastro-intestinal diseases, the causes of which were well known. In the course of the season from thirty to forty cases of so-called cholera would habitually occur. But these were cases of cholera *nostras*, which showed no disposition to spread. During the present season, he added, the number of cases observed had not exceeded twenty. This, therefore, constituted only an ordinary average. We may add that in the majority of the cases of diarrhœa which occur in Paris the disease yields easily to the means usually employed there (opium, sub-nitrate of bismuth, &c.); while the cases of cholera which have been observed constantly showed a tendency to cure.

NURSING AT ST. GEORGE'S HOSPITAL.

THE governors of St. George's Hospital have determined to appoint a superintendent of nurses who possesses a practical knowledge of her profession and some experience. Since the salary offered is £100 per annum, there will, doubtless, be numerous applicants, who must, however, be between the ages of thirty and forty-five. We trust that private interest will not be allowed to have any sway in this important appointment. The aristocratic classes, of which the governors of St. George's are principally composed, are rather in the habit of regarding appointments of this kind as comfortable berths for worn-out waiting women or discontented governesses; but we anticipate that the Treasurer of the hospital intends to select a really able officer, who will efficiently perform the duties entrusted to her.

THE RIGHT HONOURABLE C. P. VILLIERS, M.P., AND DR. ROGERS.

THE correspondence between the Right Honourable C. P. Villiers, M.P., and Dr. Rogers deserves more than a passing notice, as it illustrates the want of cordiality between the President and the permanent staff of the Poor-law Board, which for so many years has obstructed the working of the Poor Law, and the introduction of measures calculated to ameliorate the condition of the sick poor.

To Dr. Rogers belongs the credit of having suggested to the Select Committee of the House of Commons in the year 1864 the propriety of the guardians finding medicines, and of pointing out that nothing would then interfere to prevent the poor having administered to them the best and most appropriate remedies; for when, on the contrary, the medical officer has to find the medicine, the temptation is put in his way of using cheap drugs, especially when the salary is small and the duty large. The Committee adopted this advice, apparently without a division, with regard to cod-liver oil, quinine, and other expensive medicines, subject, of course, to the orders and regulations of the Poor-law Board, under which the recommendation might have been uniformly carried out, even on compulsion, if such had been required.

Instead of pursuing this energetic course, no action whatever was taken for a year; when a circular letter (which, unlike the orders, has no force in law) was addressed to the guardians, drawing their attention to the resolution of the Select Committee of the House of Commons, and at the same time expressing an opinion that much difficulty and embarrassment might arise from its general introduction, and that they were not prepared to issue any positive regulations on the subject. This circular was signed by Lord Enfield. After such a delay, and accompanied by such observations, it was scarcely likely that the recommendation would be adopted by any but the most

liberal boards of guardians; and in some cases their reluctance to entertain the question appears to have been stimulated by the local inspectors, who, following suit with the circular, deprecated alterations of this nature. We have it now recorded that not only did Mr. Villiers support the proposal in Committee, but at the office of the Poor-law Board he cordially approved of the medicines being supplied by the unions, and had even expressed impatience at the circular not having been issued sooner.

We have thus an illustration of the manner in which beneficial recommendations, backed by the best authority, are burked; for, according to a return obtained by Sir John Simeon last year, it was found that no alteration had been made in the large majority of unions, the circular letter being, as usual, quietly ignored.

COURT APPOINTMENTS.

A FORTNIGHT ago the *Gazette* contained an announcement that H.R.H. the Duke of Edinburgh had been pleased to appoint Oscar Clayton, M.D., to be Surgeon in Ordinary to His Royal Highness. We forebore to comment upon the appointment, understanding that Dr. Clayton had to thank the good offices of one of the Duke's equerries for consistently and constantly blowing his friend's trumpet on board the *Galatea*. The *Gazette* of last Tuesday, however, contains an announcement that the same fortunate gentleman has been selected by the Prince of Wales as extra Surgeon in Ordinary to His Royal Highness. Dr. Clayton is a Fellow of the College of Surgeons (by election), a Member of the Apothecaries' Company, and M.D. of Erlangen, and has cultivated successfully what is ordinarily known as "general practice." As regards scientific and professional position, we are at a loss to understand Dr. Clayton's recent appointments, and should be glad to know on what grounds they have been made.

THE PRESERVATION OF BLACKHEATH.

THIS healthy suburb of our rapidly extending metropolis possesses an open space which is of almost incalculable benefit to our teeming population. For years past its green sward has been gradually destroyed, partly by wantonness, and in some cases by a legalised stealth. Local authority, even, aided by the recent "Commons Enclosure Act," has failed to preserve what in our day we value more and more as we lose it—an open space for the purposes of recreation and fresh air. We are therefore glad to learn that recently the subject has been brought before the Metropolitan Board of Works, with the object of preserving this lung of London, and of continuing its full benefits to the public. It is in contemplation to plant some portions of it with trees, to set apart others for recreation and equestrian exercise, and to place the entire heath under police authority.

THE WINE-STORE VERSUS THE GIN-PALACE.

"VINUM lac senum" is a mediæval adage which, having survived the denunciation of Dr. Sangrado, has received the scientific *imprimatur* of the "restorative" school of medicine. A paramount condition, however, of its obtaining any practical force is that the wine be genuine, and not one of those compounds so ingeniously devised to engender rather than counteract disease. The impunity with which our ancestors used to drink so much port and claret is less a proof of the strength of their constitutions than of the excellence of the liquor imbibed,—not even the strongest of them being one whit better able than ourselves to indulge with any freedom in the so-called "port" of second-rate hotels, or the "sherry" that scares visitors in middle-class houses on its entrance with the luncheon-tray. Ligneous port and igneous sherry, however, are innocuous compared with the vitriolic whisky or the fiery gin with which the lower orders are accustomed to refresh themselves; and no movement deserves more encouragement from medical practitioners, or, for that matter, from the payer of poor-rates, than that which places good, wholesome wine within their reach.

The Victoria Wine Company propose to open in the thickly-populated regions of the City a number of stores for the sale of cheap wine; and already they have succeeded in selling to the poor of Hackney, Bethnal-green, Islington, and the Old Kent-road port and sherry at one penny per glass, or fourpence per quarter of a pint, including the bottle. These and the other wines on sale are surprisingly good for the price, and, as the subjoined analysis which we have made will show, are far superior in purity to others of much more pretension.

SHERRY. Specific gravity 994·25. Composition per 1000 grains.	Grains.
Anhydrous absolute alcohol .	155·85
equal to of	
Proof spirit	275·25
Volatile acids: acetic, &c. ...	0·63
Fixed acids: tartaric, &c. ...	9·11
Tartrate of potash	0·79
Tartrate of lime	1·82
Grape sugar	23·95
Cane sugar	2·43
Albuminous matter	0·78
Gum, colouring matter, &c...	10·84
Mineral matter	2·07
Phosphoric acid	0·16
Containing 0·123 grains of nitrogen.	

PORT. Specific gravity 1003·25. Composition per 1000 grains.	Grains.
Anhydrous absolute alcohol .	148·98
equal to of	
Proof spirit	263·12
Volatile acids: acetic, &c. ...	0·59
Fixed acids: tartaric, &c. ...	11·06
Tartrate of potash	0·64
Tartrate of lime	2·92
Grape sugar	56·45
Cane sugar	3·76
Albuminous matter	1·28
Gum, colouring matter, &c...	4·85
Mineral matter	3·72
Phosphoric acid	0·27
Containing 0·194 grains of nitrogen.	

It would, of course, be affectation to assert that the wines of the Victoria Company are made wholly from the grape; but they may be confidently recommended as sound, agreeable, and charged with a sufficient amount of alcohol to render them usefully stimulant and restorative. We wish the company success in making their wines popular, and in deflecting the current of sound port and sherry into channels hitherto flowing with deleterious brandy and corrosive gin.

SISTE, VIATOR!

TOURISTS about to visit the Italian capital, and especially those of our fellow-countrymen who meditate wintering there, should be cautioned against the drinking-water. Florence, and indeed all Tuscany, is very ill-supplied with this necessary of life,—the water being supersaturated with inorganic, and even effete organic matter. In Florence itself the impurities in the water-supply are chiefly alkaline, and these combined with the acid red wines universally drunk by the population have caused stone and gravel to be widely prevalent. We have it on the authority of a highly intelligent Florentine, of great medical accomplishments, that 80 per cent. of the population are more or less afflicted with these diseases; and English residents, after but a few weeks' experience of Florence and its water, have found themselves suffering severely in the kidneys and bladder. Artificial Vichy waters have proved quite useless in nearly all cases, and nothing but some means similar to those adopted in London will render the city of Florence a safe place of sojourn for the tourist—a corroborative of the wise saw of Pindar, *Ἄριστον μὲν ὕδωρ*.

THE FATAL FIRE IN SOHO.

THREE out of the four persons who were injured in the recent fire in Portland-street are still under treatment in the Middlesex Hospital. Edward Walton, the carman, lived only twelve hours after his admission. His injuries were unusually extensive, every part of his body except a small portion of one foot, being burnt. The poor fellow suffered terrible agony, which large doses of opiates failed to relieve. Geo. Mattocks, aged forty-three, the master of the shop, is very badly burnt about the face, both hands, and legs; but his case at present promises favourably. And this may be said also of the others: Edward Monument, aged forty-three, burnt about the arms,

face, and left leg; and John May, aged sixteen, whose arms and legs are much scorched. In each case carron oil is applied with cotton wool, and a bandage over all. Nothing is found to give so much relief as this old-fashioned application. It seems, from what the master told us, that the deceased carman was in all probability the unwitting cause of the disaster. The master, with his assistance, was tapping a cask of methylated spirit, when a leakage was observed, and a candle having been brought near in order to ascertain its source, a fine jet of spirit spirted into the flame, and of course instantly ignited, and a pale flame flickering about the cask near the tap (somewhat like leakage from a gas-pipe) showed where the woodwork was imperfect. If now the flame had been smothered by a wet cloth no harm would have happened; but, unfortunately, the carman, in his alarm, tried to thrust the cask out of the shop into the street, and in the effort it came to pieces, of course enveloping everyone near it in flames, and setting fire to the house.

HAIR-WASHES.

IT is only right to refer to a source of possible disease which is peculiarly widespread just now, and against which the public should be cautioned. At the present time there is quite a rage for the use of hair "washes" or "restorers," which, whilst the charge of their being "dyes" is indignantly repudiated, yet in a short time "restore" the colour of the hair. The active agent in these washes is of course lead. In the majority of cases, probably, a moderate use of such a lotion would be unattended with mischief; but it is worth remembering that palsy has been known to be produced by the long-continued use of cosmetics containing lead. Of the thousands of persons who are now applying lead to their scalps, there will doubtless be some with an extreme susceptibility to the action of the poison, and these will certainly run no inconsiderable risk of finding the "restoration" of their hair attended by loss of power in their wrists.

AN energetic remonstrance has been forwarded by the guardians of Mile-end to the Poor-law Board against the refusal to sanction the increase of salary to the medical officers. The guardians observe that the medical staff of Marylebone costs £1660; of Lambeth, £1405; of Greenwich, £1160; of St. Pancras, £1045; of Bethnal-green, £920; of Shoreditch, £860; and of Islington, £835; whereas in Mile-end it is proposed to limit the amount for three efficient officers to £600 only. The Guardians conceive "that your Board has overlooked the fact that the medical men who have the care of the whole of the sick poor of the Hamlets (population 85,000) are strictly prohibited from private practice. Should the proposal not be confirmed by your Board, an injustice will be inflicted upon both gentlemen, inasmuch as, upon condition of the increase, more frequent visitation was to be enforced. Looking at all the circumstances, and coupling therewith the fact that £250 per annum is by no means excessive for a qualified medical gentleman who devotes his whole time to the duties, the guardians still hope that your Board will be pleased to confirm the said increase, or that an appointment will be made when it will be convenient to receive a deputation in support of the said proposition."

Two ships have recently arrived from ports east of the Cape with several cases of scurvy on board. It is possible that both will be made subjects of official inquiry by the Board of Trade, as that department is very properly using all possible means to ascertain the merits of the working of that part of the Duke of Richmond's Act which relates to the prevention of diseases, and which came into operation on the 1st of January last. *Apropos* of this subject we may remark that two important papers were moved for in the House of Commons by Mr. Luck and Mr. Graves, one being a return of all vessels that have cleared from British ports without a proper supply of certified lime- or lemon-juice, and the other a return of the gross quantity of juice certified by the Government inspectors since the Act came into operation. Why are not these papers forthcoming?

A VERY satisfactory report of the sanitary state of Southampton, as estimated by the death- and sickness-rates of the place for the last quarter, has just been presented to the authorities by the medical officer of health, Dr. McCormack, who remarks that the inhabitants of Southampton may still claim it to be one of the healthiest towns in the United Kingdom. During the quarter ending August 4th, the deaths were 224, or 17·31 per 1000; or, deducting cases of violence, accidents, and the like, 15·85. The birth-rate is still high. The deaths from diarrhœa amounted to only 1·47 per 1000, which is peculiarly low as compared with many other large towns. Dr. McCormack informs us, also, that the rules and regulations passed by the local board for sublet and overcrowded houses, have been cheerfully complied with on the part of occupiers, and he has reason to believe that much sickness will be thereby prevented in the future. The lodging-houses are reported to be in good order. A public abattoir is urgently needed.

THE authorities at the Cape of Good Hope are taking active measures for the prevention of venereal disease at the military and naval stations of the colony. With this object in view, a Bill was introduced into the Legislative Council, and considered in Committee of the whole House on the 29th of June last, and, we understand, was passed. The districts to which the Act at present applies are those of Cape Town, Simon's Town, the city of Graham's Town, and the town of King William's Town. The Act is similar in its principles and details to that of our own Contagious Diseases Act. It is objectionable in one respect. Clause 13 imposes upon the medical inspector the duty of granting certificates of health to the cured women. This, as we have before stated, is a most objectionable provision, for the possessor of the clean bill of health can use it to every personal advantage in her avocation. No health certificates should be given to convalescents, but, if needed, sent to those whose duty it is to supervise and to see that the diseased are not at large. We hope that this clause will be amended. In other respects the Act has our entire commendation.

DURING the last month the infant mortality from diarrhœa in the parish of Marylebone has been excessive, being 27·6 per 1000. Dr. Whitmore reports the deaths during the four weeks ending July 25th to be 99, 83, 85, and 80 respectively, making a total of 347, as against 376 births. In eleven charitable institutions the enormous number of 2965 cases of diarrhœa were treated. There was no case of real cholera. It has been discovered that the entire drainage of the Baptists' College flowed into the Regent's Park lake. This explains the frequent presence of the most offensive effluvia, the source of which has hitherto been a mystery. Steps have been taken to remedy the nuisance.

DR. KOUGH has been rewarded for his perseverance in insisting on an increase of his salary as medical officer of the Windlesham district of the Chertsey Union. It may be remembered that he resigned, and told the guardians that he should be happy to attend the poor as private patients. The guardians have preferred to raise his salary from twenty to fifty pounds a year.

THE thirty-eighth annual meeting of the British Association will be held at Norwich next week, commencing on Wednesday. The Duke of Buccleuch will be replaced in the presidency by Dr. Joseph Hooker, D.C.L., F.R.S.

EVERY candidate for the second M.B. examination at the University of London will be required, in future, to present a certificate of proficiency in vaccination from one of the authorised vaccinators appointed by the Privy Council, and the examiners in medicine will practically test the knowledge of candidates.

MR. MITCHELL HENRY comes forward as a Liberal candidate for the representation of Manchester.

IT has been arranged that the annual meeting of the Ray Society shall be held at Norwich, on Friday, the 21st inst., in the room occupied by Section D of the British Association.

THE Convalescent Home for Unmarried Women in connexion with the Queen Charlotte's Lying-in Hospital has been removed to new quarters in Paddington. During the last year, of thirty-two women admitted, twenty-six were enabled to enter situations, and were thus reclaimed.

REPORT
OF THE
THIRTY-SIXTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

HELD IN OXFORD, AUGUST 4TH, 5TH, 6TH, & 7TH, 1868.

WE now continue the report of the proceedings of the British Medical Association on Thursday and Friday, the 6th and 7th of August, on the latter of which days the meeting terminated. We were only able, from want of space, to insert a summary of the proceedings of Thursday in our last week's issue. The following is a *résumé* of the work done in the various Sections on that day—morning and afternoon.

Section A.—Medicine.

Dr. EADE (Norwich) "On the Etiology of Phthisis." Dr. Eade endeavoured to show that tubercle was essentially but an expression of feeble vitality and exhausted nerve-power, permitting the occurrence of an ill-regulated or unrestrained cell-growth or development. Cells (he said), more or less simple, were the original and lowest form in which animal life was presented. Higher animal structures were formed of such cells elaborated under the influence of more highly developed nervous centres. Any defect of these centres would tend to allow the body to be formed of less highly organised and vitalised tissues with a constant tendency to revert to their original form of cells. The subjects of congenital tuberculosis were feebly and flabbily formed, and their tissues had a constant tendency to disintegrate (proneness to ulcerations), and to develop new cell-structures (in lymphatic glands and as purulent discharges). The actual invasion of disease in tuberculously cachectic individuals was due to exhaustion of the nerve-force of the part affected. In acquired tuberculosis (which was chiefly of the lungs) a similar exhaustion of the peripheral nervous twigs was produced, either directly or more commonly by a reflex action from the surface. The part was thus at once reduced to a lower condition of life, and cell-growth was allowed to begin, either in spots as miliary tubercle, or in parts as tubercular consolidations. The cells were of feeble vitality, and hence tended rapidly to degenerate. They were possibly capable of reproduction.

Dr. GIMBERT (Cannes) followed on the same subject.

Dr. ANSTIE, "On some forms of Visceral Neuralgia." The author had originally intended to sketch out the whole subject of visceral neuralgia, but finding it impossible to do this effectively in a short space, now confined himself to neuralgia (1) of the heart, and (2) of the ovary and uterus.

1. Under the heading of cardiac neuralgia the author included every variety of the affection commonly known as angina pectoris. He endeavoured to show that, whatever the amount of organic change present in the heart or vessels, the essential feature of the disease, and that which constitutes its interest and its danger to life, is the element of neuralgic pain; or rather, that condition of the nervous system of which that pain is the prominent expression. So far is angina from being always, or nearly always, a rapidly fatal disease, that the author is convinced, from his own experience and from the study of recorded cases, that in the great majority of instances, this affection runs a decidedly chronic course, with intermissions, which completely characterise the neurotic origin of the disorder. In support of this position three series of facts were adduced. The first series included the narration of striking cases in which the anginal spasms recurred during fifteen or twenty years, and death at last took place, not from heart-spasm or heart-palsy, but from degenerative disease of the nervous centres. The second series of facts was concerned with the evidently close relations between angina and the ordinary neuralgias (as shown by the frequent occurrence of the latter in anginal patients), and with the intimate connexion evidently existing between spasmodic asthma and angina pectoris. The third series of considerations included the arguments from hereditary taint, and these are, perhaps, the strongest of all. Not only is angina itself frequently a direct inheritance (as in the celebrated case of Dr. Arnold, whose father had died exactly as he did), but the most ordinary care in inquiring about pain by history will not fail to produce a striking effect on the physician's mind by showing the extraordinary frequency—one might almost say universality—with which anginal patients will be found to have descended from a race strongly marked by tendencies to the more severe neuroses. These positions were illustrated by cases which had come under the author's notice; and the following general conclusions were drawn:—1st. That the essence of angina is a neuralgic condition which (by reflex action on the cardiac motor nerves) may produce either cardiac palsy or cardiac spasm. 2nd. That the tendency to this neurotic condition is constitutional, and nearly always congenital. 3rd. That the various organic lesions which have from time to time been found in anginal patients acted merely as greater or lesser *provocatives* to the neurotic disorder. The author then discussed in detail the treatment of cardiac neuralgia.

2. As regards uterine and ovarian neuralgia, the author remarked, at the outset, that those affections are distinguished from other neuralgias by the frequency with which *peripheral* sources of irritation are the most important factors of the neuralgic state. Considering the great copiousness of the nervous supply to the uterus and ovaries, and the powerfully disturbing character of the functional processes which are periodically recurring in these organs, we need be at no loss to understand how this should be. The most common variety of peri-uterine neuralgia is that which attends certain kinds of difficult menstruation. It would not be correct, however, to give the name of neuralgia to the pain suffered in many cases of dysmenorrhœa, in which the suffering is apparently entirely dependent on and commensurate with the amount of obstruction to the escape of menstrual fluid, although its character somewhat resembles the neuralgic type. There is, however, a true neuralgic dysmenorrhœa, the subjects of which have exaggerated sensitiveness of the pelvic organs, and are, besides this, liable to neuralgia of other parts. In the virgin condition they suffer at every period from frightful pain, and this pain is not relieved, or is only most imperfectly relieved, on the occurrence of the flux. These young women, so far from having any mechanical conformation which forebodes sterility, are usually both perfectly apt for conception and child-bearing, and are also evidently benefited by the exercise of these functions. As a contrast to a case which he had related, of dysmenorrhœa from mechanical obstruction, in which marriage was sterile, and the painful periods continued after it, the author related two cases in which frightful neuralgic attacks which had accompanied menstruation in the virgin state diminished after marriage, and soon entirely ceased. This favourable alteration was coincident with an improvement in the general health, and a lessening of the general tendency to neuralgic and other nervous disturbances. The peripheral sources of irritation which give rise to uterine or ovarian neuralgia are not always situated in those organs themselves. Ascarides in the rectum, leucorrhœa of a purely functional nature and proceeding simply from the vagina, calculus of the kidney or ureter, scybalous fæces in the rectum, and even the irritation of parts far more distant, may produce pelvic neuralgia in a reflex manner. Even a carious tooth has been known to produce this effect, and its removal to effect an immediate cure. There is, however, one kind of peripheral irritation locally connected with the uterus itself, which is probably one of the most frequent of all exciting causes of uterine and ovarian neuralgia—namely, displacements and flexions of the womb. It has been recently stated by Dr. Graily Hewitt—and the opinion of that high authority was fully confirmed by his (Dr. Anstie's) own much smaller experience—that the great majority, if not all, of the

cases which Gooch grouped under the title of "irritable uterus" are really examples of uterine displacement or flexion. The kind of pain which attends these cases, although more or less continuous, is liable to periodical aggravations which assume all the severity of true neuralgia, and this severity is largely commensurate with the sensitiveness of the general nervous system. The author made full reference to the treatment, especially by subcutaneous injection of sedatives.

Dr. STRANGE (Worcester), "Notes on the Pathology and Therapeutics of Disorders of the Nervous System accompanied with excess of Motility." The author classes under this title chorea, hysteria, epilepsy, paralysis agitans, mimosa, and some forms of insanity. His object is to show, by a minute examination of the special symptoms of each, as well as from the general symptoms common to the whole group, that there is a family relationship between them all, and that their pathology must be looked for in the difference in the part of the system affected, rather than in any essential distinction between the morbid processes in each. Excess of motility being the expression of a diminution rather than of an excess of the nervous force, the treatment in all these disorders will be substantially the same: firstly, by such means as shall improve the quality of the blood; and, secondly, by those which present material easily assimilable by the nervous tissue. He has found the most rapid cures from the exhibition of alcohol as food to the vesicular neurine, in frequent small doses (six to eighteen ounces per diem), in chorea, hysteria, mimosa, &c., with cod-liver oil when required; and from large doses of bromide of potassium in epilepsy.

Dr. WOAKES on "Ergot of Rye in the Treatment of Neuralgia." The object of this paper being to introduce the ergot of rye as a remedy in the treatment of neuralgia, a brief epitome of the writer's views of the pathology of this disease precedes the illustrative cases, this application of the drug being the direct corollary of his theory. Regarding shingles as more or less illustrative of all forms of neuralgia, he refers the rash and the pain in it to the same cause—namely, effusion of liquor sanguinis from the ultimate branches of the artery in the track of which the symptoms appear. Tracing the artery to the *skin* in one direction, the effusion from a papillary arterial twig is seen to occasion a spot of herpes upon the cuticular surface of the papilla; tracing it in the direction of the corresponding *sentient nerve*, the fluid effused from the nutrient twigs (vasi nervorum) supplying it is found to occasion, by its mechanical disturbance of the sentient fibrillæ, the severe pain constituting the associated neuralgia. The cause of the effusion in either case is referred to a temporary suspension of the regulatory influence exercised over the minute arteries by the sympathetic nerve-fibres distributed to them. It is this suspended function that the ergot is supposed to restore, and so to allow of the removal of the fluid from its pain-causing situation. Five cases are reported: one of severe neuralgia, following shingles; one of sciatica, of four months' duration; one of hemicrania; and two of ordinary tic,—in all of which cure resulted in from four to six days after commencing with the ergot.

Dr. HAYDEN, "On the Differential Diagnosis of the Significance of certain Endocardial Murmurs."

Dr. PROTHEROE SMITH, "On Bromide and Bi-bromide of Mercury as Therapeutical Agents." The paper commenced by a comparative view of the relative combinations of fluorine, chlorine, bromine, and iodine with mercury, both with regard to their affinity and per-centage in each compound. It was also shown that the bromides are more active than the chlorides. Then followed some remarks on the action of the elements of the compound—viz., bromide and mercury, in which was ascribed to Sir C. Locock the introduction of bromide of potassium to the profession. The author had used the bromide and the bi-bromide of mercury for upwards of five years, and had found the bromide valuable as an efficient cholagogue and purgative, promoting absorption of morbid tissue with less constitutional disturbance than from calomel, citing instances, and calling on members of the Association to aid him by their efforts further to investigate the subject and to prove his conclusions.

Dr. T. K. CHAMBERS, "How shall we make our Daily Experience advance Science?" The author argued that it was possible to extract from the gigantic waste of daily practice constituents of truth as important as any dug fresh from the mine of devised experiment, and to advance chiefly now by utilising such waste products. It is the duty of a practitioner of medicine to take notes of every case that comes under his charge. It is especially those which superficially appear commonplace and repetitions of one another that need to be thus recorded. Medical men are often deterred from keeping a systematic record of their private practice by the idea that to do so necessarily involves a considerable expenditure of time. Dr. Chambers doubted the fact. Certainly the careful annotator is longer over his first visit to a patient than is a hurried prescriber; but then subsequent visits are much shortened, for the refreshing of the memory by a repetition of questions is avoided. But still the time thus spent is an important part of the question, and it is very desirable to reduce it to a minimum by mechanical contrivances. The plan Dr. Chambers adopts is as follows: He writes all his prescriptions and papers of advice in a copying-book, which preserves a duplicate of them by means of transfer paper (De la Rue's Copying-book); and at the back of this transcript he writes usually with the patient before him, always before he attends to the next case, the history, so far at least as to explain his reasons for the advice. The periodical indexing of these pages is an easy job for an hour of weariness; and the whole time consumed is so crumbled up that it is never missed, and neither business nor amusement can complain of the robbery. These notes serve as corrections to our memories; they make available to the increase of real knowledge that which is otherwise just as likely as not to lead to imperfect, and therefore false, knowledge; they turn a stumbling-block into a stepping-stone. He then offered a few suggestions on the use of drugs. 1. He advised giving only one drug at a time. 2. To allow a certain sufficient interval, different in different instances, between leaving off one medicine and beginning another. 3. Each observer to have as short a pharmacopœia as possible. The best workmen use the fewest tools, he argued. 4, and lastly. The union and co-operation together of those who are working at the same subject is of incalculable value. The skeleton of the machinery exists in the British Medical Association. Why should not each branch or group of branches take up a drug, and let us know after two or three years their experience of its action?

Dr. DUCHENNE (of Boulogne) exhibited and explained a variety of Photographic Illustrations of certain Forms of Muscular Atrophy.

Mr. WHEELHOUSE, "On a Case of distended Pericardium, threatening immediate Death, relieved by Paracentesis."

Dr. ROBERTS, "On Exploration and Tapping."

Section B.—Physiology.

Dr. HUMPHRY, "On some Points in Relation to Growth."

Mr. HART, "Ophthalmic Signs of Constitutional Disease." The author classified them as follows:—1. Amaurosis with appreciable lesions at fundus of eye. (*a*) From intra-cranial lesions: cerebral tumours, meningitis, encephalitis and ranchissement, cerebral apoplexy, phlebitis of sinuses, hydrocephalus, concussion and compression, lesion of cerebellum, changes in insanity. (*b*) From diseases of spinal cord and general nervous system: myelitis, general progressive paralysis, locomotor ataxy, epilepsy, chorea, cerebro-spinal meningitis. (*c*) Disturbances in the circulatory system: embolism, metastatic choroiditis, hæmorrhage, leukæmia, heart-disease. (*d*) Syphilis. (*e*) Tuberculosis. (*f*) Disturbances in urinary system: albuminuria, diabetes, oxaluria. (*g*) From the action of certain medicinal and other agents: tobacco, alcohol, opium, lead. (*h*) From disorders of the female sexual organs: pregnancy, hysteria, suppression of menses. (*i*) During acute diseases: diphtheria, intermittent fever, cholera. 2. Sympathetic amaurosis, with no appreciable morbid changes at fundus of eye: sympathetic functional or dynamic amaurosis. Mr. Hart enumerated the differential characters of the most striking of these forms of change; of which the time allotted only allowed him, on this occasion, to give a brief outline. The object of the paper was to illustrate the value of the ophthalmoscope—by the light of recent researches and of over two thousand observations of his own—as an instrument of diagnosis, and of clinical and pathological research.

Dr. CHIENE, "On Extra-peritoneal System of Arteries."

Dr. LIONEL BEALE, "The Arrangement and Action of the Nerves distributed to the Capillary Vessels."

Mr. LUND (Manchester), "On the Air of Hospitals, in reference chiefly to the Presence of Microscopic Germs." The author detailed some experiments which he had made on the air in one of the surgical wards of the Manchester Royal Infirmary. The ward in which the experiments were conducted contained four beds, and had a cubical capacity of about 5400 feet. A fluid ounce of distilled water was placed in a pint stoppered glass bottle, and by removing the stopper, raising the bottle sharply through the air, reclosing and quickly shaking it, the water and the air were intimately mixed; and this process was repeated in all fully 500 times, until the water, pre-

viously transparent, had become slightly opalescent. In the deposit thus thrown down, after forty-eight hours, distinct evidences of the presence of organic life were perceptible under the microscope, and on the fifth day there were numerous actively moving vorticelli, with abundance of monads in ceaseless motion. From this it was inferred, if the same experiments were repeated under more varying circumstances, it might be shown that the presence, in the air, of microscopic organic germs was a constant condition easily detectible. The simplicity of the experiment, and the evidence derived from it, attracted much attention.

Dr. G. JOHNSON, "On the Physiology of Anæsthesia." The author observed that the late Dr. Snow proved that anæsthetic vapours prevent the combination of oxygen with the tissues in the same way as they lessen combustion. Dr. George Harley proved that narcotics mixed with the blood lessen the amount of oxygen absorbed and of carbonic acid exhaled. Unconsciousness, or anæsthesia, is immediately due to defective oxidation of nervous tissue. The causes of this defective oxidation are various:—1. A mixture of narcotics with the blood. 2. An arrest of the circulation, as in syncope and epilepsy. 3. The circulation of unoxygenised blood, as in apnœa, and when the oxygen of the blood is replaced by nitrogen or protoxide of nitrogen.

Dr. SANSOM on "Anæsthesia and the Mode of Action of Anæsthetics." The author considered the *rationale* of action of anæsthetics. He criticised the theory of their direct action on the central ganglia of sensation, which he considered disproved by many facts. On the contrary, they present a complete similarity with the phenomena of deprivation of oxygen. The author showed that anæsthetics produce their phenomena by inducing a suppression of oxidation in the body—(1st) directly by acting on the blood, and (2nd) indirectly by modifying the forces by which the blood is circulated; and that they have no special action on sensory ganglia.

The section then attended a demonstration of the myograph by M. Marey in the large lecture-room of the museum at four o'clock.

Section C.—Surgery.

Dr. J. R. WOLFE, "On the Removal of Cancer by Caustic Arrows and Carbolic Acid."

CASE 1.—Epithelial cancer in the inner canthus, involving both eyelids, of nine years' standing. Four openings were made around and one in the centre of the tumour, into which were inserted caustic arrows. On the third day the tumour came away. Wound treated with carbolic acid dressing, at first strong, afterwards diluted, and with the application of carbolised wadding dipped in glycerine; healed in a fortnight; no relapse, and scarcely a trace of a cicatrix remained to show the great loss of substance which had occurred.

CASE 2.—Cancer of lower eyelid and cheek removed as in last. Discharged cured in eighteen days; no relapse.

The advantages of this mode seem to be—1. Little or no pain; no confinement to bed required. 2. Complete extirpation of the diseased part. 3. Gap left, granulates freely, without leaving any mark. 4. It is valuable for removing tumours from regions where no skin can be obtained from the neighbourhood, and is also applicable to erectile tumours, nævi, cancer of the breast, &c., occurring in particular persons, places, or seasons of the year when the use of the knife is to be dreaded. The arrows are prepared by making chloride of zinc into a stiff paste with starch, rolling into shape, and drying.

Mr. HENRY LEE, "On those Secretions which are, and on those which are not, the Means of communicating Constitutional Syphilis." The author related typical cases of two distinct kinds of syphilitic infection; and dwelt upon the test of inoculation as distinguishing the two varieties. It was not every pustule, he observed, which was to be considered the true specific pustule; for he related the case, and showed the drawing, of a well developed pustule at the expiration of fourteen days, produced by inoculating some simple pus from a case of excision of the knee-joint. Mr. Lee then referred to his original observations on the inoculation of matter from indurated sores. The conclusions at which he had come were that the secretions from indurated sores under irritation were sometimes inoculable; but that the inoculations differed from those performed from the secretions of suppurating sores. He next referred to the confusion that existed in the writings of those who professed to have given their attention to the subject; and instanced the Report made by the Committee on Venereal Diseases last year to the Secretary of State. After examining sixty-four witnesses, and producing a report extending over upwards of 600 pages, the committee came to the conclusion that no one could tell whether a given local affection would contaminate the system or not. The committee described a local sore which did not infect the system, and a simple sore which did; but they drew no distinction between these two diseases, and the author of the paper thought that it was simply begging the question to say that a sore was local because it did not infect the constitution, and that it did not infect the constitution because it was local. A patient would find out for himself that a sore was syphilitic when he had secondary symptoms; and this was all the committee considered that a medical man could do. Mr. Lee, on the contrary, recognised two distinct kinds of disease, each of which followed its definite laws. There had been no instance, he observed, in which the inoculation of the secretion of the specific pustule, or of the sore which resulted from this, had given rise to constitutional syphilis; and he explained the confusion that had arisen upon this subject by a quotation from Professor Owre, in which it is stated that, in the experiments upon syphilisation, no such care was taken in the selection of the matter as would appear from the printed statements, but that both kinds of matter were used indiscriminately. The author's conclusions were:—1. That the infecting form of syphilis is communicated by the secretions of both primary and of secondary syphilitic disease. 2. That the secretion of any other specific disease (including the secretion of specific pustule and the suppurating sore which results from it) has no power of imparting constitutional syphilis. 3. That the natural secretions of glands in syphilitic subjects, when those glands are not themselves specifically diseased, have no power of imparting constitutional syphilis.

As this is a subject of general interest, we append the remarks made by the President of the Section, Mr. Paget:—"Mr. Lee's paper seems to me," said he, "to offer a fair explanation of some of those cases in which secondary syphilitic affections have followed, and have appeared to be the consequences of, soft chancre. Such cases have occurred to most surgeons; and yet so rarely in comparison with those in which secondary symptoms follow hard chancre, that they seem insufficient to disprove the law according to which hard chancre or diseases derived from it are the necessary precedents of secondary symptoms, the sole sources of constitutional infection. A law of this kind, if there be one, can have no exceptions. What seem to be such must, if the law exists, be erroneously or incompletely observed facts. And here the incompleteness of the observations in some of the assumed exceptions may have been, as Mr. Lee suggests, that a patient has had a soft chancre at or about the same time as he has been infected from a hard chancre, the virus of which has traversed sound textures, and has produced in them too little change to be observed. It must have occurred to everyone seeing many cases of syphilis to meet with patients having secondary or tertiary symptoms, who have nevertheless been unconscious of having ever suffered with primary disease. Such cases are commonly explained away or disbelieved. They may have been instances of infection through textures which were not observably contaminated by the transmission of the infecting material through them. Such a transmission is sometimes observed with the poison of dissections; and although one may doubt much of what some believe respecting the derivation of pus-cells from exuded white blood-cells, yet it is quite certain that pus-cells and others like them may pass through membranes having no visible apertures, and may leave no visible traces of their passage. The doctrine of essential difference between infecting and non-infecting, hard and soft, chancres is in the same position as many others in pathology. We seem to have discovered a general law: the facts in support of it are many; those against it are very few—we are justified in suspecting that these are incompletely or erroneously observed, and are not what they seem to be.

Mr. TUFNELL on the "Cure of Internal Aneurism."

Dr. HUMPHRY (Cambridge) on the "Torsion of Arteries." The Professor gave the results of his experience of torsion of arteries after operations, as well as the results of experiments on animals, and on the arteries of man and animals after death. For many months he has practised torsion after all operations, including three amputations in the thigh, amputations in the leg, of the breast, excision of the knee, &c. It has answered quite well. There has been no after-hæmorrhage in any of the cases; the wounds have healed more quickly, and there has been less pain, than after the ligature. The operation is rather more troublesome, and requires more care and time, than the ligature. He simply seizes the end of the artery with strong forceps, and, holding the forceps in the axis of the

vessels, twists till the portion included in the grasp is twisted off and the forceps are quite free. In the process of torsion, as observed upon an artery twisted after death, the thick, inner, musculo-elastic coat is first severed, often as though it had been cut by a knife or ligature. As the torsion goes on, it is so compressed or squeezed by the twisting of the outer coat that its divided edge is commonly turned up, reflected, into the tube of the artery, to a greater or less extent, as the resistance of the outer coat is more or less prolonged, forming a valvular or funnel-like projection into the vessel. Thus there are the two things—the inversion of the inner coat and the twisting of the outer. It is upon the latter that reliance is to be placed for resistance to the flow of fluid from the vessel, inasmuch as its pressure causes and maintains the valvular inversion of the inner coat, and, further, by its own strength, offers a direct obstacle to the escape of the blood. This the Professor has proved by injecting water, and connecting a column of mercury with the vessel.

Mr. BRYANT followed on the same subject.

Mr. COLLIS (Dublin), "On Improvements in Plastic Surgery." The author described his method of operating for vesico-vaginal fistulæ, by splitting the margins of the fissure, and using quilled sutures. He also demonstrated a new mode of operating for hare-lip, the peculiarity of which consisted in utilising all the parings. He further advocated the use of chloroform in cleft-palate operations, and strongly recommended the propriety of saving the palate, and, if possible, the alveolar process and teeth in tumours of the superior maxilla. His paper was profusely illustrated.

Mr. NUNNELEY (Leeds), "Cases illustrative of Surgery of the Ankle-joint."

Mr. GEORGE MAY, jun., "Case of Aneurism of the Innominate Artery, treated by Acupressure of the Carotid and Brachial Arteries." J. W——, aged thirty-eight, suffered from aneurism of the innominate artery for twelve months. On August 19th, 1867, an aneurism-needle was passed behind the carotid, and the probe behind the brachial, close to the axilla. Arrest of pain and visible pulsation. The needle was removed after seventy-two hours. The pulse recommenced in temporal; ligature of carotid. The probe was removed from the brachial after ninety-six hours. There was return of visible pulsation in the aneurism on the twelfth day. The author made the following deductions:—1. Early period at which collateral circulation becomes established. 2. Importance of securing carotid and subclavian arteries simultaneously. 3. Advantage of acupressure over ligature. The following were the results of treatment:—Partial arrest of growth of aneurism. Patient able to do easy work.

Mr. A. ADAMS (Maidstone), "A New Instrument for Investigating the Field of Vision." It consists of a hollow hemisphere of glass, divided into meridians and parallels as an ordinary globe. The eye-piece is at the centre of the concave side, and the surgeon traces the extent of the field of vision upon the exterior surface. The examination can be performed with great ease and perfect accuracy. The instrument will supply a want long felt by ophthalmic surgeons.

Section D.—Midwifery.

Dr. PROTHEROE SMITH, "On the Treatment of Flexions of the Uterus by means of an Elastic Pessary." Having first noticed the frequent occurrence of displacements of the uterus, the recent date of their recognition, and his papers on the subject in the "British Record of Obstetric Medicine" twenty years ago, he promised a future publication of manuscripts written long since, but still incomplete. He then described and exhibited his own elastic pessary of gutta percha, invented and employed by him twenty years ago, consisting of two rings suited to the form of the vagina, united in front and free behind, to adapt itself to the natural movements of the pelvic viscera, &c., and to guide continually, by its elasticity, the misplaced organ into its normal position. He illustrated its use by an instructive case.

Dr. G. H. KIDD (Dublin), "On the Treatment of Intra-uterine Polypi." This paper opened by showing that we are indebted to Sir James Simpson's application of sponge-tents for the dilatation of the uterus for being able to detect or treat intra-uterine polypi; but sponge-tents, it is shown, are liable to many objections. Instead of sponge, Dr. Kidd recommends the use of sea-tangle, with pieces of which, sufficiently long to traverse the whole cavity of the uterus, and of about the size of a No. 5 or 6 bougie, he fills the canal of the cervix as completely as it can be done without using force or causing pain. If the os should be abnormally small, it might be necessary to introduce a single tent for a few hours, as a preparation for more full dilatation; but in general the parts are so relaxed by the hæmorrhage from the polypi that five or six or more pieces can be introduced at the first attempt; and this is found sufficient to permit of a full exploration of the uterus, and the removal of any polypi found in it. For extracting the polypi the use of a single wire écraseur is found the most certain and simple method. The tumour is seized in a vulsellum, guided to it by the finger on the uterus; and then the loop of the écraseur is guided to it by the vulsellum, and adapted round its neck by the finger, when tightening the screw divides the attachment of the tumour, allowing it to be extracted along with the vulsellum, by which it had been seized. Dr. Kidd stated that he had operated in this way on very many cases during the last three years, and had always found it safe and efficacious; and he concluded by exhibiting twenty-nine fibrous polypi that he had removed in this way from the interior of the cavity of the body of the uterus of an unmarried woman aged fifty-six, at four operations; three being removed in the first operation, in September, 1867; nine in the second, in March, 1868; eleven in the third, in May; and six in the following July, when the interior of the uterus was freely painted over with strong nitric acid, with the hope of preventing their further growth; and, for so far, with good effect. The tumours were found, on microscopical examination, to be simply fibrous, differing in this respect from the recurrent fibroid tumours described by West and others; and Dr. Kidd stated that he believed the case to be unique in the annals of medicine.

Dr. GREENHALGH, "On Missed Labour."

Dr. BARNES, "On the Diagnosis of Early Pregnancy." The author observed that during the first three months it was often difficult to affirm the presence or absence of pregnancy with confidence. The evidence was cumulative, no one sign being alone trustworthy, but probability rose in proportion to the cumulation of signs. He drew attention to a peculiar stretching of the connecting tissue which binds the cervix uteri to the base of the bladder, caused by the anteversion of the gravid womb. This stretching backwards produced a characteristic smooth elastic plane of the roof and anterior wall of the vagina. This sign, if found in conjunction with the violet coloration of the vagina described by Jacquemier, might be taken as strong presumptive evidence of pregnancy. The specific characters of the violet colour depending upon pregnancy were also described. The memoir was illustrated by paintings.

Dr. MARION SIMS, "On Illustrations of the Value of the Microscope in the Treatment of Sterile Conditions."

Drs. A. WILTSHIRE and TYNDALE WATSON, "On a Case of Ovariotomy during Acute Peritonitis, the Patient recovering." Mrs. S——, aged forty-nine, the mother of nine children, healthy (with the exception of varicose veins of the lower limbs) until a year ago, when the abdomen began to enlarge, and the catamenia became irregular. As the abdomen enlarged, varicosity of veins disappeared. She had attacks of pain and tenderness from time to time. Dr. Watson attended her from March until May 1st, 1868, when after a long walk all her symptoms became aggravated, and severe acute peritonitis, accompanied by rapid enlargement of the tumour, set in. She was seen by Dr. Wiltshire on May 3rd, when she appeared moribund. The extremities were cold, there was incessant vomiting, and the pulse was scarcely perceptible. The diagnosis was ovarian tumour, with acute peritonitis, owing to its rapid enlargement. Dr. Wiltshire on certain grounds urged operation, which was reluctantly acceded to by Drs. Watson and Murray; and, the patient having improved under nutritive enemata, opium, ice, and champagne, ovariotomy was performed by Dr. Wiltshire on the 4th of May, Drs. Watson and Murray assisting. Chlorform given. Tumour very large, and non-adherent; peritoneum everywhere brilliantly injected; about three pints of glairy serum escaped. Cyst tapped with Dr. Murray's trocar; yielded a gallon of blood, but was still very large. In attempting its removal it rent, and a quantity of blood escaped into the peritoneal cavity. The pedicle was very small, and so rotten that ligatures gave way, and clamp would not hold. Hæmorrhage arrested only by transfixing and tying right half of uterus; silver sutures used for wound in abdomen, which united by first intention, without the formation of a single drop of pus. The patient rapidly improved, and recovered perfectly without a rigor.

Section E.—Public Medicine.

Mr. CHADWICK, "On Local Appointments, and on the Separation of Private Practice from Public Medical Service."

Dr. HESLOP (Birmingham), "On the Mode of Admission of Patients in British Hospitals." The object was to show the

serious evils which arise from the system of privileged notes, or subscribers' nominations. The chief illustrations of these evils were drawn from the report of Messrs. Bristowe and Holmes, contained in the Sixth Report of the Medical Officer of the Privy Council. The author declared the system to be an irony on charity, absurd in principle and disastrous in practice.

Dr. HORACE DOBELL, "On the Mode of Admission to Hospitals."

Mr. RENDLE, "The Residential Conditions of the Poorer Classes in this Kingdom with reference to Health and Complementary Conditions." He considered his audience and the profession they represented singularly fit for this work, they only of all classes seeing the condition of the lowest people in their homes. He noted Mr. Simon's and Dr. Hunter's seventh and eighth reports, showing that house room for the lower people is becoming more scarce and less fit; that apparently systematic destruction of this kind of dwelling, in the face of a largely increasing population, has been steadily going on. He dilated upon the evils of overcrowding, mixing of the sexes, the prevalence of incest, bastardy, infanticide, filthy and degrading habits, and, as a consequence rather than a cause of degraded homes, drunkenness, and generally the inevitable absence of religion and morality in any true sense. He adverted to the production and spread of disease, fevers, tubercular disease in all its shapes, to a deterioration of race, especially in towns, known altogether to the Americans as "the tenant house rot." He saw not only danger and degradation to the family and the individual, but danger to the country, as this people were getting to know that these conditions ought not to be possible in this country. By way of remedy, he proposed, 1st, a selection of the poorest and worst localities for investigation, so that with new street-plans a better kind of building might be extensively and at once erected, to be cheap and healthy, and altogether suited to the conditions and circumstances of the *lowest* people, which the buildings of societies and philanthropists so far fail in; 2ndly, an organisation of the medical profession for politico-social purposes; 3rdly, a desire that many of the best and most independent men in the profession should be members of the coming House of Commons.

Dr. J. E. MORGAN, M.A. (Manchester), "Town Life among the Poorest; the Air they breathe and the Houses they inhabit."

Mr. BERKELEY HILL (London), "The Prevention of Venereal Disease."

Dr. C. R. DRYSDALE, "The Prevention of Venereal Disease."

Dr. J. POPHAM (Cork), "The Social Evil: how can it be met?"

Dr. W. TINDAL ROBERTSON (Nottingham), "On the Present Mode of Election of County Coroners."

Mr. C. A. NEWNHAM (Wolverhampton), "The Remuneration of Medical Attendance on Sick Clubs, &c."

(To be concluded.)

Correspondence.

"Audi alteram partem."

THE SANITARY CONDITION OF GUILDFORD.

To the Editor of THE LANCET.

SIR,—There is an old saw which says that "the devil is not so black as he is painted;" it is quite as applicable to the annotation contained in THE LANCET of the 8th inst., headed "Epidemic in Guildford," as to his satanic majesty. I can assure you that, from whatever source you may have obtained your information, the statement to which I refer is exaggerated and erroneous.

It is true that this town is at the present moment the seat of epidemic scarlet fever, and although several fatal cases have occurred, very many of them have been of so mild a type that they have not even been confined to bed by the disease. The seizures have been about three per cent. of the population; the death-rate about five per cent. of seizures, a low one for scarlet fever. There has been no epidemic scarlet fever here for twelve or fourteen years; consequently, a large number of the younger population is liable to be attacked, and as the disease has prevailed since March, it is surprising that the number of seizures has not been larger.

With regard to the deficient water-supply and foul state of the river, described as "the receptacle of all the sewage of a population of 10,000 people," I beg leave to inform you that the water is as good as that usually obtained from the chalk, and that none of the sewage is discharged into the river; neither is it the "filthy, fetid stream, so black and thick and muddy that you cannot see an inch from the surface," as the paragraph in question represents it, although it may not be so clear as streams flowing through soils composed of gravel and sand.

The means for the supply of water are in a transition state, in consequence of a transfer of the property of the waterworks from a private company to the local board, and an incompleted steam-engine in course of construction. Although the supply of water is sufficient—thirty gallons per person per diem,—it is not so abundant as is desirable, or as it will be shortly, when the mechanical arrangements for its distribution are completed. The water is supplied by a spring from the chalk, and, like all such waters, it is hard, containing about fifteen grains of the bicarbonate of lime per gallon, reduced to about four grains by boiling; the total solids per gallon is twenty-three grains. It is free from any sensible colour, smell, or taste; it is perfectly aërated, and remarkably free from organic impurity; it is clear, sparkling, and agreeable. No river water is ever distributed for any purpose whatever.

Consequent upon the physical conformation of the site of the town, and its immediate environs, the rainfall is carried off with great rapidity, so that the streets are as dry in an hour after continuous and heavy rain as they have been at any time during the recent hot weather. Whatever may be the impurity in the water of the river Wey, the production of it is not chargeable to Guildford, which is a purely trading and agricultural town, without a manufactory of any kind. The Wey rises near Alton, in Hampshire, and passes Farnham in its course; both of these towns are in the same category as Guildford. It has two tributaries, the Tillingbourne, from the green-sand formation at Leithhill and its vicinity, and a less considerable affluent from the wealden clay on the southern confines of the county of Surrey. Its aggregate length, with that of its tributaries, I estimate at forty-five miles before it reaches Guildford; its average depth is probably five or six feet; its width forty feet; and its flow at the rate of a mile and a half or two miles an hour. The volume of water is therefore considerable; and, as it is not a tidal river, there is no reflux. At different points upon its course are situated four paper mills, four tan-yards, and one leather mill, and probably minor sources of contamination. Of objectionable matters flowing into the Wey from these manufactories, probably the refuse bleaching materials discharged from the paper-mills is the most noxious, and is undoubtedly prejudicial to beings living in its waters at or near to the points of discharge. But as the nearest of these mills must be at a distance of at least four miles from the town, and the discharge only periodical, in consequence of extreme dilution its presence must be inappreciable, and would give no result to the most delicate chemical tests. With respect to the refuse from tanneries, all the animal matters are commercially too valuable to waste, and are therefore economised. The exhausted liquor of the pits, almost if not entirely deprived of the tannin, and merely containing vegetable extractive and colouring matters, is alone allowed to run to waste. This being cast into the river doubtless discolours its waters, and unfits it for drinking and domestic purposes, but neither renders it "filthy, fetid, nor muddy." It is therefore simply absurd to attribute the existence of scarlet fever at Guildford to the influence of the water of the river Wey as one amongst other causes for its production. It is a disease *sui generis;* it originates from a poisonous and contagious principle having its genesis in bodies already infected by it, and is quite independent of local and atmospheric agencies. This opinion is the very generally accepted one by the most distinguished etiologists and sanitarians of the kingdom. With reference to the mythical overflowing cesspools, poisoning waterclosets, and other abominations, I shall only remark that the statement is *more* than an exaggeration. I leave its refutation to those who can speak about it with more personal and accurate knowledge than I can do.

Do not imagine from what I have written that I am an apologist for polluted streams, impure water, or neglected drainage; no one can be a more strenuous advocate for the advancement of a more perfect hygiene in these respects than I am. But I have felt it to be my duty to put you right about a statement which, uncontradicted, would exert a very prejudicial influence upon a flourishing and fast-improving town, in which I have lived for more than fifty years, and in which a reader of the article in question would be led to infer the existence of a condition of

things disgraceful to our civilisation, and would have pictured to his imagination a stream only paralleled by the fabulous river of mythological times.

I am, Sir, your obedient servant,

Guildford, August 10th, 1868. RICHARD EAGER.

To the Editor of THE LANCET.

SIR,—Your article on the Epidemic of Scarlet Fever at Guildford bears so hardly on the local authorities, and by implication on the medical men of the town, that I trust you will allow me space in your next issue to put in a few words for our defence.

The information upon which you founded your remarks is tolerably accurate in regard to the extent and fatality of the disease; but in dealing with the causes of the outbreak, your authority has misled you by grave misstatements and exaggerations of fact, such as could only have been penned in the excitement caused by the presence of what is in truth a widespread and dangerous epidemic.

It is alleged that this outbreak of scarlet fever "owes its existence" to three distinct causes,—defective water-supply; the foul state of the river, which is described as being the receptacle of all the sewage of 10,000 people (the whole population); and the disgraceful condition of the drainage.

As to the first charge, I venture to submit that thirty-five gallons of water delivered daily to each inhabitant of houses taking water from the public works, is not to be deemed an insufficient supply; and I am assured by the manager of the works that the above quantity has not failed one day during this year. Neither is the quality of the water at all deteriorated so far as it can be judged by smell and taste.

The two remaining charges will be seen to contradict each other, for we are told by the authority quoted in your columns that the river receives *all the sewage* of the whole population, and in the next sentence that cesspools abound!

The state of the river is undeniably bad, but it has been absurdly exaggerated, and it is not from the cause assigned by your informant. The chief impurities it contains are poured into it at points far above the town by the various manufactories seated on its banks, or on those of its tributaries. The amount of sewage contributed by Guildford is small, if closet drainage is to be understood by this term, and is furnished by no more than twenty-five or thirty houses, while the contamination caused by the influx of surface or house-drainage is not sufficient to alter perceptibly its colour or smell, in which it resembles most of the river water with which I am acquainted.

Lastly, as to the drainage, as is well known through the able report lately made by Dr. Buchanan, the cesspool system prevails here; and from being sunk in a chalk soil the cesspools readily allow filtration, which must in many instances endanger the purity of the well water. The system is one that cannot be defended, but it will have to be endured until some expedient is found for the disposal of sewage more practicable and less costly than any of those now in use, and, probably, until some special legislation shall render the utilisation of sewage compulsory in all towns.

But while acknowledging the existence of this defect of drainage in Guildford, and fully admitting its influence on the course of some of the zymotic diseases, I must be allowed to challenge the assertion that it has originated, or even seriously aggravated, the present epidemic of scarlet fever.

I am supported by very high authority in saying that there is strong evidence of this disease being diffused and propagated solely by its infectious quality, and often irrespectively of all *external* sanitary conditions. If it were not so, how are we to explain its greater prevalence and mortality among the higher and middle classes? This disproportion has been abundantly shown in the present epidemic. The deaths that have occurred in the houses of the gentry and tradesmen form a large proportion of the whole number of deaths; and in some houses where the sanitary arrangements are the best, the cases have been the most severe and rapidly fatal. On the other hand, in the worst localities, and where nuisances most abound, there has been either no disease, or only a few cases of a mild type. One other fact deserves mention, that out of more than fifty cases of scarlet fever which have come under my notice since the middle of June, three only have occurred in houses that were visited by the typhoid epidemic of last year. Again, the banks of the river, on which, from the description given of it by the local newspapers, we ought to find the direst form of pestilence, have furnished but few cases in the present outbreak, and those of ordinary severity. In the militia depôt, which stands close to the river, and just below the outfall of the town drains, the disease has assumed a milder character than in any other quarter.

And now I would ask whether there be not some other cause for the unusual intensity of this epidemic more efficient than any that have been suggested by your informant? Is it not highly probable that a heat unexampled in the memory of most of us may have played a considerable part in the diffusion of this fever? Whether by increasing the activity of the poison, or by lessening the vital powers of the recipient, it is an undisputed fact that a high range of temperature favours the spread and intensifies the force of other zymotic diseases. The great probability of such an influence being exerted here is shown by the progress of the epidemic.*

Scarlatina had been prevailing more or less in the town since the beginning of last winter, and was kept alive apparently by infection communicated slowly through a succession of cases. The number of cases slightly increased on the appearance of warm weather, notably so in the middle of June; and by the middle of July, when the temperature reached and so long maintained its maximum, the epidemic suddenly burst forth with extraordinary virulence, and as suddenly declined with the cool weather which has now succeeded during the past week. A coincidence so remarkable is not to be explained away by any theories of the causation of disease, though it has been entirely ignored by the local journal, and in the comments of THE LANCET.

I trust that a more scientific investigation of the matter may lead you to qualify the opinions expressed in your journal, which have been most detrimental to the interests of this town.

I am, Sir, your obedient servant,

Guildford, August 12th, 1868. HENRY S. TAYLOR.

*** Having every desire to do the town of Guildford justice, we have published two important letters from Mr. R. Eager and Mr. H. Taylor, and beg to acknowledge the receipt of letters on the same subject from the Mayor and Dr. Stedman, remonstrating against the statements we quoted from the local papers, and inserted in an article in our columns last week, in reference to an epidemic of scarlet fever now prevailing, and the causes thereof. We thought it best at once to despatch a special Commissioner to make a careful personal inspection of the town of Guildford. The report will be published in our next impression. Our correspondents are all in error in supposing we asserted that scarlatina arises from insanitary conditions; but we apprehend that the most thorough contagionist would admit that an epidemic of that disease is favoured if not promoted thereby, and that excessive heat would be likely to aggravate their force.—ED. L.

LOCOMOTOR ATAXY.

To the Editor of THE LANCET.

SIR,—In my Address in Medicine, delivered at Oxford last week, I there stated that Mr. Lockhart Clarke endorsed the opinion that locomotor ataxy depended upon disease of the spinal cord *only*. This is not so. Mr. Lockhart Clarke in THE LANCET of December 30th, 1865, p. 729, writes thus:—"I object to the practice of speaking of this disease under the term 'degeneration of the posterior columns of the cord,' first, because I have found the grey substance more or less affected; and, secondly, because the lesions, as we have seen, are not confined to the cord." Mr. Lockhart Clarke adds, in a note to me on this subject, which I have just received, that "Dr. Hughlings Jackson holds the same opinion in this matter as himself; nor," he further adds, "does Dr. Duchenne dissent from it now, whatever may have been the opinion he formerly entertained."

I shall be much obliged by your giving insertion to this note, not only in justice to my friends whose views are here stated, but also as supporting opinions long held in this country, that ataxia is a cerebro-spinal lesion.

I am, Sir, your obedient servant,

Brook-street, Grosvenor-square. WILLIAM W. GULL.

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* The position of Guildford, on the opposite slopes of a deep valley, materially increases the heat, while it obstructs ventilation.

MEDICAL EDUCATION.

THE following important letter, which sufficiently explains itself, has been forwarded to all the teachers in recognised medical schools. We trust that the lecturers in the several departments of study named will take some trouble to facilitate the labours of the Committee by replying fully to the questions propounded, and without unnecessary delay:—

Office of the General Council of Medical Education, 32, Soho-square, London, W., August, 1868.

Sir,—A Committee of the Medical Council has been appointed to inquire "how the various subjects of medical education which have been deemed requisite by the Council may be taught with most advantage; in what order they should be studied; and how the examinations on them ought to be arranged."

By the recommendation of the Medical Council, four years are to be devoted to the study of the ten following subjects:—Anatomy, general anatomy, physiology, chemistry, materia medica, practical pharmacy, medicine, surgery, midwifery, and forensic medicine. There must, therefore, be a limit to the extent and detail in which the several branches can be taught.

The above inquiry is restricted to the course of study which is necessary to enable students to obtain the requisite knowledge and skill for the efficient practice of their profession, and is not intended to embrace the fuller courses of study suited for the higher qualifications.

Having regard to the nature of the inquiry and circumstances, as above stated, the Committee would feel obliged by your communicating to them in writing the expression of your opinion on the following points:—

1. The topics which may most advantageously be included under the subjects of
2. The period in a four years' course when they can be most profitably studied, and the length of time which should be devoted to them.
3. The manner in which they can best be taught,—by lectures, practical instruction, or otherwise.

The Committee would also feel obliged by any further observations or information which may occur to you as deserving of attention in connexion with the subject of their inquiry.

The Committee beg leave to express their hope that the importance of the subject in question will induce you to forgive the trouble thus proposed, and that you will transmit your reply to me, at the above address, on or before the 1st of October, 1868.

I am, Sir, your obedient servant,

(Signed) JAMES SYME,
Chairman of Committee.

THE CASE OF SUSPECTED POISONING BY CANTHARIDES AT GUILDFORD.

THERE can be little doubt that the death was in this case due to scarlatina. The medical witness who made the post-mortem examination unfortunately took home the infection, and one of his children has succumbed to the disease. He states that he took every precaution against infecting the members of his family, but that it was impossible to get rid of an offensive smell from his hands. He has attended many cases in the town, but is firmly convinced that infection was in this case conveyed in a more concentrated form, and was the cause of his child's attack.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At a general meeting of the Fellows held on the 10th inst. the following members of the College were duly admitted Fellows of the same:—

Heaton, John Deakin, M.D. Lond., Claremont, Leeds.
Jackson, John Hughlings, M.D. St. Andrews, Bedford-place, Russell-square.
Morgan, John Edward, M.D. Oxon., St. Peter's-square, Manchester.
Moxon, Walter, M.D. Lond., Finsbury-circus.
Ogle, William, M.D. Cantab., Derby.
Robertson, Charles Alexander Lockhart, M.D. Cantab., County Asylum Hayward's-heath.
Thompson, Reginald Edward, M.D. Cantab., South-street, Park-lane.
Thompson, Edmund Symes, M.D. Lond., Upper George-st., Portman-square.
Tuke, Thomas Harrington, M.D. St. Andrews, Manor House, Chiswick.

ARMY MEDICAL DEPARTMENT.—The Director-General presents his compliments to the Editor of THE LANCET, and begs to forward for insertion a list of candidates of her Majesty's British Medical Service who were successful at the competitive examination in February, 1868, and who have passed through a course at the Army Medical School.

	Studied at	No. of Marks.
Lewis, T.	London and Aberdeen ...	6452
Dobson, G. E. ...	Dublin	6035
Fraser, L	Belfast	4569
Williamson, N. A. ...	Edinburgh	4378
Walker, I.	Dublin	4295
Ryan, G. W. ...	"	4177
McSwiney, E. N. ...	Cork	4170
Conyers, J. S. ...	Edinburgh	4155
Fitzgerald, R. G. ...	Dublin	4137
Usher, J. H. ...	"	4008
Leader, J.	Edinburgh and Cork ...	3980
O'Brien, J. A. G. ...	Cork	3979
Gasteen, W. C. ...	Dublin	3968
Anderson, R. F. ...	London	3910
Geoghegan, W. ...	Dublin	3835
L'Estrange, A. K. ...	Edinburgh and Dublin ...	3827
Kirwan, A.	Dublin	3807
Jones, C. E.	"	3803
Knox, J. M.	"	3760
Craig, R. M.	"	3423
Ruhilly, J. R. ...	"	3382
Brown, A. L.	"	3310
Macrobin, A. A. ...	Aberdeen	3291
Waghorn, F. ...	London	3175
Jennings, C. R. ...	Dublin	3155
Garde, W. H. ...	Cork	3073
Reynolds, J. H. ...	Dublin	2950
Barford, H. H. ...	London	2915
Jackson, T. W. ...	Glasgow	2913
Thornton, D. ...	Dublin	2910
Latchford, J. ...	"	2775
L'Estrange, G. W. ...	"	2732
Fraser, P. F. ...	"	2688
Campbell, W. G. ...	"	2670
Samuels, W. Z. ...	"	2614
L'Estrange, F. A. ...	"	2454
Farer, O. S.	"	2428
Parke, Duke	"	2379

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 6th inst.:—

Abruth, Gustavus Adolphus, Sunderland.
Aldrich, Frederick Edward, Mildenhall, Suffolk.
Allbutt, Henry Arthur, Leeds.
Marsh, John Willford, Wickhambrook.
Milligan, William, Buxton.
Rawlings, William Henry, Camelford.
Sewell, Allen, Twickenham.
Stephens, Richard Frederick, Penryn, Cornwall.

The following gentlemen also on the same day passed their first examination:—

Walter Weare, Westminster Hospital; A. C. Sisson and G. E. F. Etheredge, St. Bartholomew's Hospital; F. D. Atkins and W. H. Lloyd, Guy's Hospital; A. E. Bower, S. H. Hobley, A. T. Gibbings, and Alfred Cotterill, King's College Hospital; Frederick Prigg, St. George's Hospital; Andrew Clark, University College Hospital.

THE health of Morocco has greatly improved.

YELLOW FEVER has appeared at Rivas Nicaragua in a severe form.

DR. BREWER has issued his address as a Radical candidate to the electors of Colchester.

CHOLERA has disappeared from Mamgan and Casabianca. It still prevails at Havannah.

IT is reported that fever is rife at Sydenham, and that it is brought about probably by bad drainage.

KIDDERMINSTER INFIRMARY, it is proposed, shall be added to, in the way of a new building capable of holding twenty-four beds.

THE Library of the Royal Medical and Chirurgical Society will be closed from Monday, August 17th, to Saturday, September 12th, both days inclusive.

IT is stated that Dr. Sebastian Evans, the editor of the *Birmingham Daily Gazette*, will be a candidate for a seat in Parliament in the Conservative interest.

THE introductory address at Guy's Hospital in the ensuing session is to be delivered by Dr. Moxon, and that at St. Thomas's by Dr. Barnes.

THE quarterly dinner of the Edinburgh University Club was held on Wednesday evening last at the Crystal Palace. There was a numerous attendance of members and

guests. The chair was occupied by Professor Laycock, and Drs. Sieveking and Lavies acted as croupiers.

DEATH FROM SUNSTROKE. — A shepherd named William Bragg, fifty years of age, was engaged on Pitt Farm, near Barnstaple, recently, when he was observed to fall suddenly on his face. He was picked up dead. A surgeon said there was no doubt death was caused by sunstroke.

THE large Chemical Works on the south side of the Tyne, about a mile and a half from Gateshead, and known as Friar's Goose, have been seriously burnt. They occupied a site of twenty acres in all, and the part destroyed by fire covers about four acres.

THE "Army and Navy Gazette" states that at the Curragh instructions have been received that, as a sanitary measure, patients in military hospitals are to be allotted 1200 cubic feet of space each, and arrangements are being made to give effect to these instructions as soon as possible.

A COTTAGE HOSPITAL is about to be established for the use of Alton-in-Hants and its neighbourhood. A small weekly payment, varying from 2*s.* to 5*s.*, at the discretion of the Committee, will be required from patients.—A cottage hospital will probably be established at Newmarket. Dr. Gray has pointed out the great want of such an institution.

A PRIZE OF £1000.—The Marquis of Ourches has left the above sum to be given next year by the Academy of Medicine of Paris to the discoverer of accurate means of distinguishing apparent from real death. The full prize will be awarded if these means may be understood and applied by any one; but it will be reduced to £200 if the method can only be used by medical men.

THE POLLUTION OF THE THAMES.—At the meeting of the Metropolitan Board of Works on Friday, August 7th, Mr. Nicholay gave the following notice of motion,—"That it be referred to the Works Committee to consider and report on the best course to be pursued to prevent the pollution of the Thames by the discharge of the sewage from Greenwich Hospital, the dockyards at Woolwich, and other large Government establishments." This is a step in the right direction.

MILITARY HOSPITAL ARRANGEMENTS IN PRUSSIA. Professor Esmarch, of Kiel, has substituted the ordinary shirting triangle for the bandage which Prussian soldiers used to carry in their knapsacks. He has managed the triangle in such a way that the first dressing of wounds and fractures can, behind the firing line, be instantly applied, guns and bayonets being used as temporary splints. M. Wittmaack has sent to the exhibition of Kiel an oil painting representing an action, and the manner in which the triangle should be used. The picture has attracted much attention, and it has been ordered to be printed on each of the triangles given to the troops, so that they may, on the very linen used, see the manner of employing it.

A GOOD EXAMPLE.—There is in the kingdom of Italy a parish called Dicomano. After eighteen years' service as Poor-law medical officer to that parish, Dr. Consortini, broken in health by overwork, requested some alleviation of duties. The authorities decided that this request could not be granted, and simply discharged their medical officer, along with his colleague, Dr. Corradini. The plea against the latter was, that although he had faithfully discharged his duties for eighteen years, he had lost the confidence of the inhabitants. The appointments were offered to other medical men, *but no one presented himself.* The guardians, at last, succeeded in inducing Dr. Bompiani to take charge of the patients *ad interim*, he declaring that he could not accept the appointment. The ill-used men are bringing an action against the guardians.

MEDICAL APPOINTMENTS.

ATCHLEY, G. F., M.B., has been appointed Surgeon to the General Hospital, Bristol, vice Mr. Clarke, resigned.

BRIGEL, H., M.D., has been appointed Physician to the St. Pancras and Northern Dispensary, vice A. Bealey, M.D., resigned.

BLAIR, J., M.D., C.M., has been appointed House-Surgeon to the Royal Infirmary, Windsor, vice W. T. Buckle, M.B., resigned.

CLARKE, Dr. J. H., has been appointed Medical Officer to the Workhouse and Fever Hospital of the Kilkeel Union, Co. Down, and to the Kilkeel West Sub-Dispensary District, vice Dr. Charles J. Anderson, resigned.

COOK, J., M.D., has been appointed Physician to the St. Marylebone General Dispensary, vice R. D. Powell, M.D., resigned.

GREENWOOD, J. W., M.R.C.S.E., has been appointed Medical Officer for the Shitlington District of the Wakefield Union, vice George Greenwood, M.R.C.S.E., deceased.

KOUGH, E., M.B., has been reappointed Medical Officer for the Windlesham District of the Chertsey Union.

LANGSTAFF, H. H., M.B., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Athlone Dispensary District of the Athlone Union, Co. Westmeath, vice W. Poyntz, L.R.C.S.Ed., deceased.

MACLEOD, G. H. B., M.D. (formerly one of the Surgeons to the Dispensary Department), has been appointed one of the Surgeons to the Royal Infirmary, Glasgow.

M'NAB, J., M.D., L.R.C.S.Ed., of Loch Inver, Sutherlandshire, has been elected a Fellow of the Royal College of Surgeons of Edinburgh.

MENZIES, J., M.D., has been appointed Surgeon to the Wanlockhead Lead Mines, Lanarkshire, vice W. Watson, L.R.C.S.Ed., deceased.

NEWLAND, F. J., L.K.Q.C.P.I., has been appointed Medical Superintendent of the Monkstown Parochial Benefit Society, vice Dr. Robt. Close, deceased.

OWENS, G. W., L.K.Q.C.P.I., has been appointed Supernumerary Medical Officer of the Kilmainham Auxiliary Dispensary of the South Dublin Union.

PERRY, R., M.D. (formerly Fever Physician), has been appointed one of the Physicians to the Royal Infirmary, Glasgow.

PLATT, Dr. W. H., has been appointed Resident Assistant Medical Officer to the Parishes of St. Giles and St. George, Bloomsbury, vice M'Dermott, resigned.

ROBERTS, T. A., M.R.C.S.E., L.S.A., late Medical Officer to the Lynton District of the Barnstaple Union, Devonshire, has been elected Medical Officer to the Tattershall District of the Horncastle Union, Lincolnshire, vice C. H. Roberts, M.R.C.S.E., L.S.A., resigned.

SMITH, Dr. W. F., has been re-elected one of the Physicians to the Sheffield Public Hospital.

THOMSON, T. S., L.R.C.P.Ed., has been appointed House-Surgeon to the Leith Hospital, vice M'Nicol, resigned.

WALKER, Mr. S. (Guy's Hospital), has been appointed Assistant to the House-Surgeon of the General Infirmary, Northampton.

Births, Marriages, and Deaths.

BIRTHS.

BORMAN.—On the 2nd inst., at Derby, the wife of A. Borman, M.R.C.S.E., of a daughter.

DEWAR.—On the 31st ult., at Blythswood-square, Glasgow, the wife of D. Dewar, M.D., of a son.

DUNCAN.—On the 30th ult., at Richmond, Surrey, the wife of T. Duncan, M.D., of a son.

FRANCIS.—On the 31st ult., at Rochester, the wife of C. R. Francis, M.R., Surgeon-Major Bengal Army, of a son.

HARDING.—On the 9th inst., at Whittlesea, the wife of Charles Fincham Harding, M.D., of a daughter.

LEWIS.—On the 31st ult., at Henfield, Sussex, the wife of Dr. C. F. Lewis, of a daughter.

MACILWAIN.—On the 3rd inst., at Matching-green, Essex, the wife of Geo. Macilwain, F.R.C.S.E., of a daughter.

MARTIN.—On the 5th inst., the wife of W. J. Martin, M.D., of Lower Fitzwilliam-street, Dublin, of a daughter.

MOFFAT.—On the 6th inst., at Hillhead, the wife of Dr. R. C. Moffat, of a daughter.

RATTRAY.—On the 26th ult., at Portobello, near Edinburgh, the wife of A. M'L. T. Rattray, M.D., of a son.

TOMLINSON.—On the 30th ult., at the Curragh, the wife of Assistant-Surgeon Tomlinson, Military Train, of a son.

MARRIAGES.

DONAHOO—GARDINER.—On the 5th inst., at St. Mary's, Lambeth, Thomas Malcolmson Donahoo, M.R.C.S.E., L.S.A., L.M., of Southwark, to Anna Eliza Mary, eldest daughter of the late James Gardiner, Esq., of Kennington.—No Cards.

ELLIS—FREEMAN.—On the 5th inst., at Bradford, Yorkshire, William Ellis, M.R.C.S.E., of Morley, Leeds, to Maria, daughter of James Freeman, Esq.

WALKER—MACKENZIE.—On the 3rd inst., at St. George's, Tufnell-park, Samuel Edward Walker, M.R.C.S.E., of Birmingham, to Agnes, daughter of D. Mackenzie, Esq.

DEATHS.

ADYE.—On the 8th inst., H. Adye, M.R.C.S.E., of Stretford, Manchester, aged 38.

BAKER.—On the 23rd ult., at Porchester-terrace, Hyde-park, Thos. Eld Baker (for twenty-four years Surgeon in the E.I.Co.'s Service), aged 77.

BRADSHAW.—On the 19th ult., at sea, on board the African Mail Boat "Lagos," Dr. John Bradshaw, Staff Surgeon Army.

GARRINGTON.—On the 3rd inst., at Queen's-place, Southsea, Jane Catherine, wife of William H. Garrington, Esq., J.P., and Coroner for the Borough of Portsmouth.

LANGDALE.—On the 10th inst., at Scarborough, Henry Langdale, Esq., of York, late of Green Hammerton, Yorkshire.

PORTER.—On the 11th inst., Henry Porter, M.D., of Peterborough, aged 56.

RAMSBOTHAM.—On the 5th inst., John H. Ramsbotham, M.D., of Leeds, aged 59.

ROBERTSON.—On the 2nd inst., at Rosslare, Wexford, Henry F. Robertson, L.R.C.S.I., Staff Surgeon-Major, on half-pay, aged 48.

SPENCER.—On the 6th inst., Richard Spencer, F.R.C.S.E., formerly Surgeon 21st Light Dragoons, of Fonthill-Gifford, Wilts, aged 90.

Medical Diary of the Week.

Monday, Aug. 17.

ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 1½ P.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 18.

ROYAL FREE HOSPITAL.—Operations, 9 A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Wednesday, Aug. 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
OPHTHALMIC HOSPITAL, SOUTHWARK.—Operations, 2 P.M.

Thursday, Aug. 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Aug. 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL FREE HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Aug. 22.

ST. THOMAS'S HOSPITAL.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

To Correspondents.

THE METROPOLITAN POLICE AND THE RECENTLY GRANTED REST.

EVER since the establishment of the London Police, which dates from 1829, and owes its origin to Sir R. Peel, it has been felt that the amount of duty imposed was excessive; the rest too limited. Work for eight or nine hours daily, or, worse, the same amount of night duty, week after week, and month after month, through a series of years, continued without interruption, wore out the physical powers of the men, making them prematurely old by stiffening their limbs, and thus disqualifying them. We are therefore gratified by the decision of the Committee at the Home Office, presided over by Sir J. Ferguson, and warmly supported by the Chief Surgeon of the Force, Mr. Holmes, recommending one day out of seven for total rest. Already its good effect is seen in the men both mentally and physically.

G. A. W. (an Old Subscriber) is thanked for forwarding to us the advertisement of Dr. Dupre from the *Liverpool Mercury*. Dr. Dupre's hygienic system surely cannot be of extraordinary value if it requires a column of a newspaper to vaunt its virtues and exhibit a list of its supporters.

Dr. Thudichum's communication will probably be inserted next week.

A NOVEL WAY OF REDUCING STRANGULATED HERNIA.

To the Editor of THE LANCET.

SIR,—Some few years ago, when serving my articles to a medical gentleman in the country, now deceased, a message came in the night to go to a patient about five miles off. The messenger was unable to say what was the matter, but thought his master had inflammation of the bowels. Mr. I. ordered the horse and trap to be got ready, and we started together on our journey. Arriving at the house, we found the patient suffering from strangulated inguinal hernia, the size of a small pear. His age was about forty, plethoric, and somewhat stout; had been ruptured four years; had worn a truss, but not all the time; had always been able before to reduce it himself. Mr. I. tried taxis for at least a quarter of an hour without success. The patient was put into a warm bath, and taxis again tried in the bath, without making any impression on the tumour. Mr. I., not knowing the nature of the illness when he left home, did not provide himself with chloroform or surgical instruments. He gave me directions secretly, without the patient's knowledge, to procure from one of the attendants some cold spring water from the well. This being done, the patient's eyes were covered with a towel, and the leg of the affected side flexed on the abdomen. Mr. I. grasped the tumour, and I dashed the cold water (above a pint) suddenly over the thoracic and epigastric regions. The patient gave a quick and deep inspiration, and the hernia slipped up into the abdomen. The man did well.

Believing this treatment to be original, novel, and the means of success in this instance of reducing a hernia, I thought it worth reporting in your columns.

I am, Sir, your obedient servant,

Wanstead, Essex, August, 1868. GEORGE WELLER.

THE POOR-LAW MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—I have read the letter signed "A. Fleischmann" which appears in your journal of this date, and as I believe that I can detect the source of its inspiration, I will, with your permission, briefly reply to it, especially as my name is rather prominently mentioned.

The author is evidently much annoyed at the tone of Dr. Fowler's letter, and the rebuke contained in it. That portion of the subject I shall not touch. Dr. Fowler is quite capable of taking care of himself, though, if I understood his argument aright, it was to deprecate the attempt made, towards the close of the late meeting, by Mr. Fleischmann and Mr. Hart to transfer to other bodies and individuals the credit of the present movement.

I am perfectly aware of the desirability of gaining the good-will and aid of both the British Medical and the Workhouse Infirmaries' Associations, and had the suggestion come from any other quarter, I am sure that no opposition would have been made to it.

The good the Workhouse Infirmaries' Association has done, and may yet do, if judiciously and unselfishly worked, I am perfectly well aware of. In its early days I advised that line of action which was considered the principal reason that led the Archbishop, Bishop, &c., to join its ranks—that of bringing the claims of the sick poor to more humane and Christian treatment prominently before the public, and subordinating as far as possible all selfish professional considerations; and the first circular announcing its proposed formation was signed by Dr. Anstie, Mr. Hart, and myself, at my request, without anything to indicate that we were medical men. In suggesting this, I had no desire to lose sight of the claims of Poor-law medical officers to better payment. I believed then that better treatment of the sick poor would lead to the improvement of the position of their medical attendants; and this, as far as regards the metropolis, would by this time have been effected if the working of Mr. Hardy's Act had not been confided to the hands of those obstructive permanent officials who derided the agitation, and who are now doing their best to throw obstacles in the way.

Mr. Fleischmann taunts the promoters of the meeting that no paragraph appeared in *The Times* or other leading journals. It was fairly reported by the *Daily News*, *Morning Advertiser*, and *Standard*, and at considerable length in THE LANCET. It was also reported in the Association *Journal*—not an impolitic step, if, as Mr. Fleischmann asserts, 800 Poor-law medical officers are members of that Association. But what I should like to learn is this: Was any influence used to keep a report of the proceedings out of the other daily journals, not excluding even *The Times*? Mr. Fleischmann may consider me very simple; but having been behind the scenes in public life for many years, I have learnt that these things can be and are done. Mr. Fleischmann assumes that I am perilling the prospects of the movement through having quarreled with Mr. Hart. I believe, greatly as I respect Mr. Hart, that the cause would go on to a successful issue even if such a misfortune were to happen as his entire removal from the scene. But let me tell Mr. Fleischmann that it was time to dissociate myself from this individual when he, forgetting the relations that had subsisted between us, chose, without any provocation, to side with my enemies, and use his press influence to discredit me with the public.

The reference to my friend, R. Griffin, is as unkind as it is uncalled for. This gentleman carried on his agitation for many years under every conceivable disadvantage, arising from residence in a remote country town, where he had no chance, or at least a very slight one, of making the wrongs of Poor-law medical officers known in quarters where they were likely to command public attention. Save for the help so generously accorded him in the columns of THE LANCET, he would have stood almost alone as regards the press. But, Sir, in estimating his labours, let every generous mind remember that he worked on, keeping up agitation, industriously collecting facts, and, though repeatedly discouraged by a variety of adverse circumstances, still undauntedly continuing the fight, until his health broke down in serving the cause he loved so well. Mr. Fleischmann and his friends are at liberty to sneer at me or Dr. Fowler if they like; but this part of his letter would not have been written, I know, without merited castigation, had Mr. Griffin now been able to wield his pen with his wonted vigour. But were his labours altogether in vain? Most assuredly they were not. The facts he so industriously collected are still a mine of wealth to those who are now continuing the fight. In every cause there are and must be pioneers; and if he was not destined to achieve the victory, let his name never again be introduced into any controversy where the object is so evidently transparent as that of Mr. Fleischmann's. Our efforts, I believe, will terminate successfully, for we have the intelligent and humane public with us; and if we do not sully our cause by asking, on the one hand, too much, or strive to gain our ends by separating the cause of the sick poor from our own, the end is not distant.

As regards the sneer at the continued *vexilation* of my case, which, by the way, was not referred to by me at the meeting, I can well understand it is distasteful to my enemies, and therefore they would fain hear no more of it; but it is not improbable they are destined to yet have it raised again, if only for the purpose of making the existing irresponsible officials of the Poor-law Board more chary how they behave with the same injustice and high-handed insolence to others, to whom, perhaps, the deprivation of office would be of more consequence than it is to me.

I did not enter willingly on this controversy. I shall not continue it, even though your columns be again occupied by Mr. Fleischmann, for the simple reason that I have better things to do.

I remain, Sir, yours truly,

Jos. ROGERS,
President of the Poor-law Medical Officers' Association.

August 1st, 1868.

To the Editor of THE LANCET.

SIR,—I fail to see that Dr. Fowler has in any degree controverted my arguments by a farrago of personalities, irrelevance, and innuendo, of which, upon my honour, I don't understand the hidden meaning. I think every one who will take the trouble to read Dr. Fowler's second letter by the light of my first communication must see that he is a poor angry champion of a selfish cause. In plain words, he cares that nothing should be done towards Poor-law reform but the reformation of medical salaries, and he thinks to obtain that end solely through the machinery of the Poor-law Medical Officers' Association, which has failed for twenty years. Let me assure him that his end and his means will, if selfishly pursued, infallibly fail.

This must end my correspondence, for we can gain nothing, and may lose much, by internal dissension. I did not provoke it, and I would do much to set it at rest.

Your faithful servant,

Cheltenham, Aug. 10th, 1868. ALFRED FLEISCHMANN.

THE CURE OF LEPROSY.

A STATEMENT has gone the round of the papers to the effect that a Dr. Bhau Daji, a native Bombay physician, has discovered a cure for leprosy, and that he has relieved or cured some seventy lepers. Now hitherto, although a retardation of the disease by the adoption of hygienic measures and change of air has been effected, no case of cure has been fairly proved. The statements that have now been made as regards better success are necessarily received by us with suspicion. Dr. Bhau Daji's first step should be to make known his remedies and his mode of procedure. Opportunities for putting them to the test will occur in England.

THE letter of *A Rejected Candidate* at the London University has been forwarded to the proper quarter, and the point of which our correspondent complains will, no doubt, receive attention for the future.

Alpha.—It is very unusual. No interference with them should be permitted.

CONFEDERATE GENERAL HOSPITALS.

To the Editor of THE LANCET.

SIR,—Deputy Inspector-General Gordon is hardly justified in making the sweeping statement he does about American general hospitals. That he has grounds for his statement I know; but, as published, a reader would naturally apply it to our hospitals as well as to those of the enemy. I cannot answer for more than two of the armies of the Confederacy, those of Tennessee and the department of the S. West, since I was alone connected with them; but I do most decidedly in this case repudiate the notion that their general hospitals were inefficient, or so badly conducted that a man was better left on the roadside than sent to them. That we had general hospitals of very different degrees of efficiency I know; but the faults, easily pointed out in many whose circumstances I can recall, were not due to the system of general hospitals, but to causes which would alike render inefficient a regimental hospital. I have never seen finer nor more admirably managed hospitals than some general ones in the Confederacy, and the secret of their success was that the whole control of them was in the hands of the medical department. I have fair grounds to estimate them comparatively on. I know the great naval hospitals at Malta, the Cape, and Jamaica, the civil hospitals in Calcutta, those of Paris, the model hospital of the Bethany in Berlin, that at Zurich, as well as our home establishments, not only in London, but in the provinces, and, withal, I must give the palm to one hospital, a general hospital in Mobile. The hospital Canty there, under the charge of, I believe, a Bartholomew's man, Dr. W. Henderson, struck me as without exception to leave nothing to be desired in hospital wards. The hospitals at the general hospital post at Griffin, Ga., again, were admirable—a fact they were indebted to for the first-rate administrative tact, skill, and union of the *suaviter* with the *fortiter* found in their chief, the surgeon of the Post, Dr. Robert Foster, of Nashville, and that they, with all the other general hospitals of the army of Tennessee, were, in their supplies and comforts, under the uncontrolled regulation of an unrivalled medical intendent, Dr. G. S. Blackie, a graduation medalist of Edinburgh (1855). Upon the whole, speaking of the enormous system of general hospitals attached to the armies of Tennessee and the S.W., a fanatic believer in general hospitals could easily prove his case. I may here state, in corroboration of the well-known pre-eminence of naval surgeons under all flags as hospital managers and organisers, that the head of the medical arrangements of the army of the S.W. was Dr. R. Houstin, an ex-U.S. navy man. The finest field hospital I have ever seen was that organised by him for the division Breckenridge, of which he was then P.M.O., when we went to join the relieving column for Vicksburgh.

If your space permitted, I might say something about general and regimental hospitals; but you have more than enough claimants, better entitled than I to speak. My own experience is, that in war a system admitting of only the regimental or the general hospital is a decided mistake. It is quite possible to combine both, as we did in the Confederacy, and no army in the world has ever yet gone upon an extensive campaign successfully without such more or less in force. The fact is, the hospital system which will suit one campaign will not suit another, even if armies were all alike in their social and military constitutions. What one Procrustes system will apply to such varied military processes as the Napoleonic invasion of Russia; the flying column movements in Algeria, and the Indian mutiny; the Confederates, now fighting on an inner circle, with R.Rs in their rear, open to the sole parts of the country with supplies for sick, now making a march and fighting victoriously heavy battles under Lee in Pennsylvania, in the heart of the enemy's ground, or, under Hood, enjoying a mid-winter tour of 610 miles from central Georgia to the gates of Nashville?

If you could find room, I shall be glad to send you a short sketch of the general hospital system in the Confederacy, in some respects unique in military history.

I am, Sir, yours, &c.,
A. L. MACKAYE, L.R.C.S.E.,
Late Senior Surgeon of the Artillery of the Army of Tennessee, C.S.A.

July 28th, 1868.

A Medical Dispenser.—We can scarcely answer the question. Mr. Bremridge, the Secretary of the Pharmaceutical Society, Bloomsbury-square, will give our correspondent all the information he needs.

G. P. O. would probably obtain the information by applying to the Secretary of the Colonies.

Mr. Strange, (Hampstead.)—In our next number.

G. W. P.—Six months in full mourning, and six months half mourning.

CARMICHAEL PRIZES.

To the Editor of THE LANCET.

SIR,—Dr. Mapother has to thank himself for the misrepresentation. On the 4th of May, when the three Councillors made their report, and when I assume Dr. Mapother did not know that he was a successful candidate, for the envelopes were opened by the President, he is reported to have said (*Dublin Medical Press*, May 6th) that he did not suggest the doubling of the prizes as an interested party. As Dr. Mapother did not contradict this statement, nor deny it in his correspondence with me, I naturally supposed that the proposition was made *before* the successful candidates were known.

You will, I trust, allow me to make this explanation. I had not seen the report in your journal.

Yours obediently,
Beaufort-street, Chelsea, Aug. 11th, 1868. EDWARDS CRISP.

BURROWS' SODA-WATER RACK.

A VERY simple and convenient rack has been devised by Messrs. Burrows, of Malvern, for the storage of soda-water and other effervescing drinks. The necks of the bottles are placed through an opening in a central band of metal, and the bodies of the bottles rest on a bar about three inches from the central perforated band. The number of tiers varies. The apparatus capable of holding four dozen bottles is about two feet in height, somewhat longer, and not quite a foot wide. The advantage is the free circulation of air allowed amongst the bottles.

G. P.—He would, unless on the Register, be acting illegally by styling himself a chemist and druggist. Due notice will be given as to when and where the examinations are to be held.

THE letter of our Edinburgh correspondent is unavoidably postponed until next week.

THE SICK CLUB QUESTION.

To the Editor of THE LANCET.

SIR,—Considering the matter of the appended correspondence to be of general interest, and that the principle requires some settlement by the profession at large, I send it to you for publication.

I remain, Sir, yours faithfully,
Colmore-row, Birmingham, Aug. 11th, 1868. DAVID NELSON, M.D.

Oldbury, August 1st, 1868.

DEAR SIR,—I beg to forward you a copy of a resolution adopted by the medical men of Oldbury, and I am requested, on their behalf, to solicit an answer from you at your earliest convenience.

I am, yours truly,
Dr. Nelson, Birmingham. H. SAINSBURY.

[INCLOSURE.]

A certain Mr. William Churchill Dempsey, Surgeon, &c., having established himself as a medical practitioner in the town of Oldbury, and having accepted appointments as surgeon to many Friendly Societies, in which their former medical officers have been dismissed in consequence of their asking an advance in the rate of remuneration formerly paid, we, the undersigned registered medical practitioners, residing and practising in the above-mentioned town, pledge ourselves not to call in consultation or meet any physician or consulting surgeon who will not refuse to meet in consultation or in any way encourage the said W. C. Dempsey; and we further request the support of the physicians and consulting surgeons of Birmingham and Wolverhampton, not only by their refusing to meet the said W. C. Dempsey, but by their avowing their approval and co-operation of the means adopted by the Oldbury surgeons to secure a more adequate remuneration for their services.

(Signed) JAMES BRATTY.
JOHN BROWN.
G. C. COOPER.
WM. HENRY HAYWARD.
HENRY SAINSBURY.

Colmore-row, Birmingham, August 11th, 1868.

DEAR SIR,—I have the honour to acknowledge the receipt of a printed copy of resolution of yourself and brethren regarding Mr. W. C. Dempsey, and have thought over its contents, after conferring with some of my brethren here distinguished for high principle and discretion. As to encouraging Mr. Dempsey, that is at once disposed of by the fact that I know nothing of him personally; and also, that so far from considering even five shillings per head per annum an adequate remuneration, I think it too little, though that is a matter in which each man must judge for himself, as you yourselves did when you formerly, and up to a very recent period, accepted those lower rates of payment which you now rightfully decline, but with which Mr. Dempsey seems to remain satisfied.

I trust you will bear with me if—instead of responding out and out to your propositions, adopted under the present smart of ungenerous treatment, which I might do from the basest, selfish motives, and thus avoid trouble while damaging some of my brethren, perhaps to gain your applause and support—I venture to observe that, in my opinion, there ought to be no such coercion in the matter. I am, indeed, advised by capable judges that the proceeding is illegal, and that anyone joining in it would share the legal responsibility. I also feel that I have no right to exalt myself above the law, and (life perhaps being in jeopardy) refuse to consult with any practitioner who has received the sanction of the examining boards under that law, and been enrolled on the Register by the General Medical Council of the United Kingdom.

If I might take the liberty of making any suggestion on the subject, it would be this—that the regulation of the conduct of medical and surgical practitioners should devolve upon the General Medical Council, whose rules would operate, not locally and diversely, but uniformly and universally throughout the country; so that if anyone were guilty of such conduct as should render it improper for respectable practitioners to act with him, then, but not till then, should he be struck off the Register, and so become disqualified from acting at all as a medical man.

Relying on your forbearance towards this candid statement of my opinion, which is given in all personal kindness towards yourselves, and with special regard to the true dignity and independence of our common profession,

You will believe me, dear Sir, yours most faithfully,
Henry Sainsbury, Esq., Surgeon, Oldbury. DAVID NELSON, M.D.

Messrs. Pocklington and Holloway, Pharmaceutical Chemists, of Sydenham, suggest that as dispensers are occasionally puzzled by an extraordinary large dose of some medicine being prescribed, and are in doubt as to its being the intention of the physician to order it, a sign—say the Greek ϕ—be placed after the quantity or dose, to relieve the mind of the dispenser by showing that it was not prescribed inadvertently.

Decon.—1. Opinions and practices differ; but we should regard a quarter of an hour as the limit. The application of a bag of ice and a subsequent attempt at reduction would be indicated.—2. Under no circumstances can *forcible* taxis be justifiable. Tartar emetic and tobacco enemata are things of the past in the treatment of hernia.

A. B. Great Rex, M.D.—There is such a medical practitioner; but we never heard of his keeping a special hospital for diseases of the ear.

Medicus, (Ireland.)—The new Pharmacy Act does not extend to Ireland.

INQUEST AT STAMFORD.

THERE was nothing unusual in the fact of the post-mortem revealing the cause of epilepsy to be "a spicula of bone surrounded by a deposit of rough material." It is decidedly illegal for a medical practitioner or any other person to receive a lunatic into his house without having a licence. Epileptics are not necessarily of unsound mind; but in the case in question the patient was not of sane mind.

Dr. Crowther, (Luddenham.)—There is no justification for a physician seeing the patient of another practitioner in his absence, except under circumstances of great urgency. There appears to have been no such urgency in the case forwarded to us, and Dr. Alexander had no right to see and prescribe for Dr. Crowther's patient in Dr. Crowther's absence.

G. W., (Hyde.)—Three to five guineas.

DR. ROLLESTON'S ADDRESS.

To the Editor of THE LANCET.

SIR,—I send herewith a *few errata* which I have noted in your report of the address delivered by me before the British Medical Association last week. I take the occasion to say that I was surprised, considering the character of the MSS. you had to deal with, to find so *few corrigenda* in your printed reproduction of it. One or two, however, of the *errata* I have specified are not due to faults of penmanship, but of composition, and that composition not the printer's, but mine. Your obedient servant,

Oxford, August 12th, 1868. GEORGE ROLLESTON.

Corrigenda.—Page 177, col. 2, line 27, for "the influence of *periosteal* innervation," read "the influence of *perverted* innervation." Same col., line 39, for "but it never thenceforward loses its velvet, *and*," read "and it *may* never thenceforward lose its velvet, *but*."—Page 178, col. 1, line 52, for "picked out *and secreted in the saliva*," read "picked out *by the substance*." Same page, col. 2, line 16, for "the inflammation of the skin, *cartilage*, or cornea," read "the inflammation of the skin or cornea."—Page 179, col. 2, line 39, for "*cause* to suspect.....triple phosphatic *opalescence*," read "*come* to suspect .....triple phosphatic *alkalescence*."—Page 182, col. 1, line 30, for "Michel, Path. Anat.," read "*Meckel*, Path. Anat." Same page, col. 2, line 16, for "emaciation and *withering up*," read "emaciation and *sickness*." Same col., line 15 from bottom, for "*cetaceans*," read "*selachians*."—Page 183, col. 2, line 14 from bottom, for "*strongly* curious," read "*obtusely* curious."—Page 184, col. 1, line 51, for "*ungues* and *minds*," read "*ungues* and *seeds*."

Spes Aspera Levat.—We must refer our correspondent to par. 590, Queen's Regulations for the Army, 1868, in which it is directed that "medical officers having the relative rank of field officer are to provide themselves with chargers and horse furniture, and to appear mounted when required to attend parades."

THE MEDICAL CLUB.

To the Editor of THE LANCET.

SIR,—Much to my astonishment, I received a circular a few days since, announcing the intention of the present Committee of the above-named Club to increase the subscriptions of all the members, which decision appears to me a very unfair one, as it has always been clearly given out that the subscriptions of *original members* were not to be altered. I had the privilege of serving upon the very first Committee that was ever formed in connexion with the Club, so that I do not speak from anything but my own knowledge; and although I, probably only like many others, have never entered the Club House since it existed, I have cheerfully paid my annual guinea with a desire to do my part in promoting what I consider an admirable movement; but undoubtedly if the subscriptions are to be increased, I shall at once withdraw my name from the list of members, as I will not countenance the first breach of faith upon the part of its managers; and most assuredly, although the Club may just at present feel its strength, and so disregard those who nursed it in its infancy, such a proceeding as the present one will rather decrease than increase its list of members.

Trusting that these few remarks may draw the attention of others to the subject, as well as be the means of inducing the Committee to reconsider their decision, I am, Sir, yours obediently,

August, 1868. A COUNTRY MEMBER.

W. H.—It is certainly not customary for medical practitioners to charge the sons and daughters of their medical *confrères* for professional attendance and medicine when they are ill at school. Surely in the case mentioned the medical gentleman who has sent in the account to Dr. H. could not be aware that he was a professional brother.

A Medical Student.—The Report has appeared, and can be procured at Spottiswoode's, in Fetter-lane.

PROFESSIONAL ETIQUETTE.

To the Editor of THE LANCET.

SIR,—With reference to Dr. Duncan's letter in your journal of July 11th, I have to say that my last letter was intended as an apology, and at any rate this is an apology to him for having forwarded to Dr. Griffith the anonymous letter which I had received. I have never asserted any belief in the contents of the letter, nor do I entertain any such belief; consequently I am much grieved at its publicity.

I regret having addressed my first letter (March 28) to your columns. The information I had received, and on which I fully relied, led me to state that Dr. Duncan called on Dr. Griffith's patients. On close investigation, I find, however, that that information was untrue, and founded on misstatements. I therefore sincerely regret and apologise to Dr. Duncan for having made it.

My first letter will consequently be considered as fully retracted and apologised for. Yours, &c.,

August, 1868. F. RAGSHAWE.

THE CASE OF "SPEAR v. DOIDGE."

THE report of the case as treated by Mr. Doidge, and a careful summary of the evidence given on the trial by Mr. J. H. Willis, are in type, and will be published in the next LANCET. These will exhibit in a striking light the dangers to which surgeons are exposed in the exercise of their profession, and the injustice inflicted on Mr. Doidge by the late verdict against him.

Junior.—If a union medical officer is compelled to obtain the assistance of another medical practitioner, it is competent for him to apply to the guardians for such medical practitioner's fee in addition to his own. The fee varies according to the gravity of the case, £3 being the largest allowed by a Board of Guardians, and sanctioned by the Poor-law Board. "Junior" should apply to the guardians for a larger sum.

ABORTION FORCEPS.

To the Editor of THE LANCET.

SIR,—Permit me to call the attention of your readers to a very useful instrument, which is not used nearly so much as it deserves to be. I allude to a pair of long narrow forceps for removing the ovum in cases of abortion. This instrument was first brought under my notice by Dr. Braxton Hicks. I believe he greatly improved it, and had the merit of reviving or introducing its use. At any rate I know it was very little used, and that I had frequently been baffled in cases of retained ovum, with much hæmorrhage, by the impossibility of getting or keeping hold of the ovum or the membranes, so as to remove them effectually.

I have several times used the instrument with great advantage in England; but I have recently had two cases here, in which it really seemed to me the patients must have died without it.

The first was that of a lady who had several times aborted. On this occasion, after tremendous hæmorrhage, which came on so suddenly that while she was sitting in a chair the blood ran through her dress and formed a pool upon the floor, the ovum was discharged, but without the placenta or membranes. I was waiting in the next room, there being no pain and no hæmorrhage, when suddenly I was called in, and found another tremendous gush had taken place. The patient was pulseless, with jactitation, yawning, &c. Brandy was immediately administered, and, fortunately having my forceps with me, I was enabled to commence the removal of the placenta, &c. This, although with some difficulty from the contracted state of the external parts, I was able to do, and the hæmorrhage immediately ceased. The patient recovered without any inflammatory or febrile symptoms.

The second case was a five months' miscarriage, attended by a midwife, who in trying to remove the placenta broke the funis. Very severe hæmorrhage set in, and my friend, Mr. Knaggs, was sent for. He, however, found that he could do nothing, as the external parts would not admit of the introduction of the hand, and the os uteri was likewise much contracted. None of the placenta had come away. Knowing that I had the forceps, Mr. Knaggs sent for me, and we proceeded to remove the placenta. It was taken away piecemeal, being not merely adherent to the walls of the uterus in one part, but forming, as it were, one substance with them. The hæmorrhage during the operation was considerable, and at one time it seemed as if the patient would sink before the whole could be removed. Stimulants were freely administered, and the whole placenta was at length taken away. The next day she was very weak, but complained of no pain, and had no inflammatory or febrile symptoms.

I consider that with ordinary care and skill the instrument is not in the least dangerous, and I have never seen any bad symptoms attributable to its use. I am, Sir, your obedient servant,

R. H. RAKNEWELL, M.D.,
President of the Medical Board of Trinidad,
Trinidad, June 24th, 1868. Vaccinator-General, &c. &c.

Helston.—"A County Ratepayer," in a letter to a local paper, states that an inquest was held in the town on the body of a child found dead in bed, death having resulted from convulsions. There are seven medical practitioners at Helston, including two union doctors, and he (the "Ratepayer") and others want to know why it was necessary for the Coroner to bring Dr. Congdon from Marazion to look at the dead infant. The "Ratepayer" thinks that Dr. Congdon was paid extra for the distance he came. This, however, is not so. The fee under the Medical Witnesses Act is clearly defined, and there is no payment for distance. But this is no excuse for the Coroner sending for a practitioner a long distance off when so many competent surgeons were on the spot.

Mr. March.—Surely the New Wandsworth Homœopathic Dispensary is not worthy of any serious notice.

IRRITATION IN THE ARM PRODUCED BY THE LARVA OF AN INSECT.

To the Editor of THE LANCET.

SIR,—The following rather peculiar case, which came under my observation about a fortnight ago, may possibly be interesting to dermatologists:—

J. J——, a weaver, aged twenty-five, of a healthy appearance, called to show me his arm, on which he stated something like a ringworm had lately appeared, and which increased daily in size, and was accompanied with a good deal of irritation. It commenced about nine days before as a small pustule, which seemed to increase but little in size for some days; afterwards, however, it began to extend more rapidly, and for the last few days gained at least over half an inch in length daily.

On examination, I found an elevated, inflamed, rather tortuous (not in any way circular) ridge, about a quarter of an inch wide, and over three inches in length, on the inner surface of the forearm, near the bend of the elbow, and which, from its general appearance, led me to suspect that an insect must be burrowing its way beneath the skin. I then examined the course carefully with the aid of a pocket lens, and just at the extremity I detected the little larva, of about a line in length, busily eating its way along, and leaving behind a central channel in the raised inflamed ridge. I then passed in a grooved needle, and with it easily removed the little insect entire, which I then placed in the field of a microscope, where it exhibited all the characters of a well-formed maggot. The arm got rapidly well.

I fear we must look upon this as another of the small ills which threaten humanity during this unusually hot season.

I remain, Sir, yours truly,

St. David's, August 3rd, 1868. H. HICKS.

A Public Works' Surgeon.—The payment of the surgeon for attendance on men engaged in public works (such, for instance, as those who are employed in the construction of railways) differs both in amount and in the *mode of payment*. Some contractors and employers engage a surgeon at a fixed salary to attend upon the men and their families, or the men alone. In other cases each man, whether ill or well, pays a yearly or monthly sum to the doctor, the usual sum being at the rate of 4*s.* or 5*s.* per annum. This does not include attendance on the wives and families, which usually is the subject of another contract. The remuneration in these cases varies with circumstances.

ST. LEONARD'S HOSPITAL.

ON Tuesday next the annual meeting of the subscribers will be held at the Town Hall, Sudbury, to take into consideration the following proposed bye-laws and amendment. We trust that the amendment, which is simple and practical, may be carried:—

"3. That each medical officer shall take a week in succession for the purpose of receiving patients. All cases of accident shall be admitted and retained by the medical officer of the week.

"4. That on the admission of a patient, such patient shall be allotted to the medical attendant who at the time of such admission shall have the smallest number of patients in the hospital. In case the medical officers shall each retain the same number of patients, the patient admitted shall be allotted to the medical officer of the week.

"*Amendment.*—That all patients admitted during the week be allotted to the medical officer of the week, and that such medical officer shall continue his attendance upon them as long as they remain in the hospital."

Mr. T. Flood, (County of Kildare.)—The symptom alluded to is generally the result of indigestion, and the remedy is in diet and exercise. Our correspondent should consult his medical attendant.

DRY EARTH AS A DEODORANT.

To the Editor of THE LANCET.

SIR,—In your impression of August 1st, I notice the perfect success of the dry-earth system at Wimbledon. Having not the slightest doubt of the efficacy of dry earth as a deodorant and disinfectant, but knowing well the difficulties of universally introducing the use of earth-closets, I venture to ask you to insert a suggestion which obviates in large measure these difficulties, say of expense, inconvenience, and trouble.

I have for more than a year used and advised the usage of the following means:—In an ordinary water-closet, when not too well trapped, or, in fact, when there is from any other reason a smell, keep a boxful of fresh earth, provided with a small wooden, zinc, or tin shovel; and after the closet has been used, first let a little water flow down, and then, closing the pan, throw into it a small shovelful or two of the earth. This ensures that there shall be no escape of impure air from the drain, as whatever air does pass upwards is purified by passing through the earth; also the box of earth in the closet purifies the air, much as charcoal, freshly-roasted coffee, or other deodorant would.

This means is equally applicable to closets communicating with middens, most frequently the case on the Continent.

I am, Sir, yours obediently,

Biarritz, August 3rd, 1868. CHAS. E. CHAPMAN, L.R.C.P.E.

J. C. J., (Keppel-street.)—The raw mussel is certainly not a desirable article of diet, either at this season or any other. It is used, however, extensively in Belgium, and when eaten with vinegar, salt, and pepper, is said not to prove injurious. When the mussel is healthy and boiled, it is nutritious; but when impure, it is highly poisonous.

R. F. T.—Pure almond oil is the best.

HOW TO DESTROY WARTS IN HORSES.

To the Editor of THE LANCET.

SIR,—Will you excuse me taking up a portion of your space by mentioning a remedy which I have found exceedingly useful in destroying warts in the horse?

A young and valuable horse of mine had a large number of these growths (some of considerable size) on various parts of the body. Two of the largest were removed by Mr. Robinson, V.S., of Tamworth. External remedies seemed of little use in coping with such formidable growths till a friend asked me if I had applied *gas tar* to them. I have since done so, and with the best results. Warts two inches in diameter are by this remedy shrivelled up, and their vitality destroyed in so short a time as to seem absolutely miraculous.

This is another use to which carbolic acid, now so much employed in a variety of affections, may be put with advantage, and I have little doubt that gas tar, or, still better, pure carbolic acid, will be found extremely serviceable in similar growths in man, although I have not at present had experience in this respect.—Yours faithfully,

THOMAS WEBB, M.R.C.S. Eng., &c.

Barton-under-Needwood, Burton-on-Trent, Aug. 10th, 1868.

THE MEDICAL PROFESSION AND LIFE ASSURANCE OFFICES.

To the Editor of THE LANCET.

SIR,—On June 13th I received a form from the Gresham Life Assurance Company, requesting me to visit a case for life assurance (five miles off). I did so, and forwarded the return properly filled up, fully expecting to receive a guinea for so doing. Instead of which, on applying for the fee, I received a letter from the Company, informing me that they never pay any but their own appointed referee.

I have been in a very large practice for fifty years, and have consequently certified to a great many lives; but the Gresham Life Assurance Company is the only Office for many years past that has refused me a fee. I wish to know what right have they to send me a form to be filled up, knowing as they do at the time they will not pay for it.

I think it right to caution my professional brethren against rendering themselves liable to such treatment.

I am, Sir, yours faithfully,

Chepstow, July, 1868. THOMAS KING, F.R.C.S.

A. C.—The rule of conduct to be observed is clear and defined. When a surgeon is called to attend the patient of another practitioner on an emergency, or in his unavoidable absence, the case is given up to the usual medical attendant as soon as he makes his appearance. When two medical practitioners are called in to a case of accident, the one who first arrives should take charge of the patient.

Enquirens.—1. Such a situation might be obtained.—2. Yes.

ERRATUM.—For "Gittins" in pass-list of the Royal College of Surgeons of England, p. 166, read "Gittens."

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Haughton, Dublin; Sir Henry Thompson; Prof. Struthers, Aberdeen; Dr. Rolleston, Oxford; Dr. Gull; Dr. Sydney Ringer; Mr. Roberts, Coningsby; Mr. Clare; Mr. Lumley; Dr. David Smith, Glasgow; Mr. E. Howard; Mr. C. Bennell; Dr. Blair, Windsor; Mr. Crofts; Mr. Matthews, Yealand; Mr. Pridmore; Mr. E. G. Clarke; Dr. Crowther, Luddenden; Dr. Chalmers, Brentford; Dr. Marshall, Ipswich; Mr. Watson; Dr. Crisp; Mr. Marsh; Dr. Baines; Mr. Willis, Lewdown; Dr. Begbie; Dr. Grewcock, Nottingham; Dr. Young, Yarm; Mr. Doidge, Lifton; Mr. Rivington; Dr. Cooper; Dr. Bagshawe; Mr. Ashton, Lynn; Mr. Howell; Mr. Mason; Mr. Pritchard; Dr. Nelson, Birmingham; Dr. Whitmarsh; Dr. Hyatt; Dr. Coats, Newport; Mr. Clover; Mr. Beynon; Mr. E. A. Clark, St. Louis; Dr. Fleischmann; Dr. Harding, Whittlesea; Mr. Macchivall, Panama; Mr. Eager, Guildford; Mr. Lund, Manchester; Dr. Chapman, Kirby Moorside; Mr. Martin; Mr. F. Lovell, Plymouth; Dr. Great Rex, Kidsgrove; Dr. MacCormack; Dr. Wadsworth; Mr. O'Neill, Dublin; Mr. Duncan, Glasgow; Mrs. Smythe; Mr. Whalley, Bradford; Mr. J. Wood, Kildare; Mr. Schaucht; Dr. Webb, Barton-under-Needwood; Dr. Gillam, Princes Risborough; Mr. Simson; Dr. Garrington; Mr. Green; Mr. Travers; Dr. Duke, Dover; Mr. Rowley; Dr. Jones, Liverpool; Mr. Brazier, Aberdeen; Mr. Edward; Mr. Alexander; Mr. Stephens, Weyhill; Rev. W. Theed; Mr. Mackaye; Dr. M'Nab, Loch Inver; Mr. Gill; Mr. Mitchell; Mr. Cunleffe; Mr. Toller, Gloucester; Mr. Apperton, Guildford; Dr. Hayden; Mr. Russell, Whitwell; Mr. Sharpe, Hunslet; Dr. Bacon; Dr. Macdonald, Haswell; Messrs. Cooksey, West Bromwich; Mr. Roberts; Mr. Woods; Mr. King; Mr. Price, Bridgend; Mr. Weekes; Dr. Lilley; Dr. Dalzell; Mr. Wilkes, Eyde; Mr. Stevens; Dr. Bray; Mr. Livingstone; Mr. Otton, Daventry; Mr. Gentles, Derby; Mr. N. T. Horne; Mr. Burt; Dr. Sutton; Mr. Wright; Mr. Smith, Coseley; Mr. Ayres; Mr. Holmes; Messrs. Pocklington; Mr. Mounsey; Mr. Keene; Mr. Foster; Alpha; B. T. N.; The Surgeon-General, War Department, Washington; M.R.C.S.; The Registrar-General, Edinburgh; J. M.; S.; A Country Member; T. P.; A Medical Student; T. M. P.; The Secretary of the London and General Water Purifying Company; M. A.; Spes Aspera Levat; Devon; G. W. P.; W. H.; R. F. T.; The Director-General of the Army Medical Department; M. P. S.; Junior; Plato; A Medical Dispenser; ——, Cape Town; A. C.; A Rejected Candidate; Enquirens; A Public Works Surgeon; J. C. J.; &c.

THE *Western Morning News*, the *Kilmarnock Standard*, the *Suffolk and Essex Free Press*, the *Jamaica Gleaner*, the *Overland Commercial Gazette*, the *Surrey Advertiser and County Times*, the *Bucks Herald*, the *Western Daily Mercury*, the *Lincolnshire Chronicle*, the *Gateshead Observer*, and the Supplement to the *Exeter and Plymouth Gazette* have been received.

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